



County Borough of Rochdale.

REPORT

ON

The Health of Rochdale

AND

The Medical Inspection of School Children.

FOR

THE YEAR ENDING 31st DECEMBER, 1914.

A. C. ANDERSON, M.D.

Medical Officer
of Health,
and School
Medical Officer,
and
Sanitary Officer.

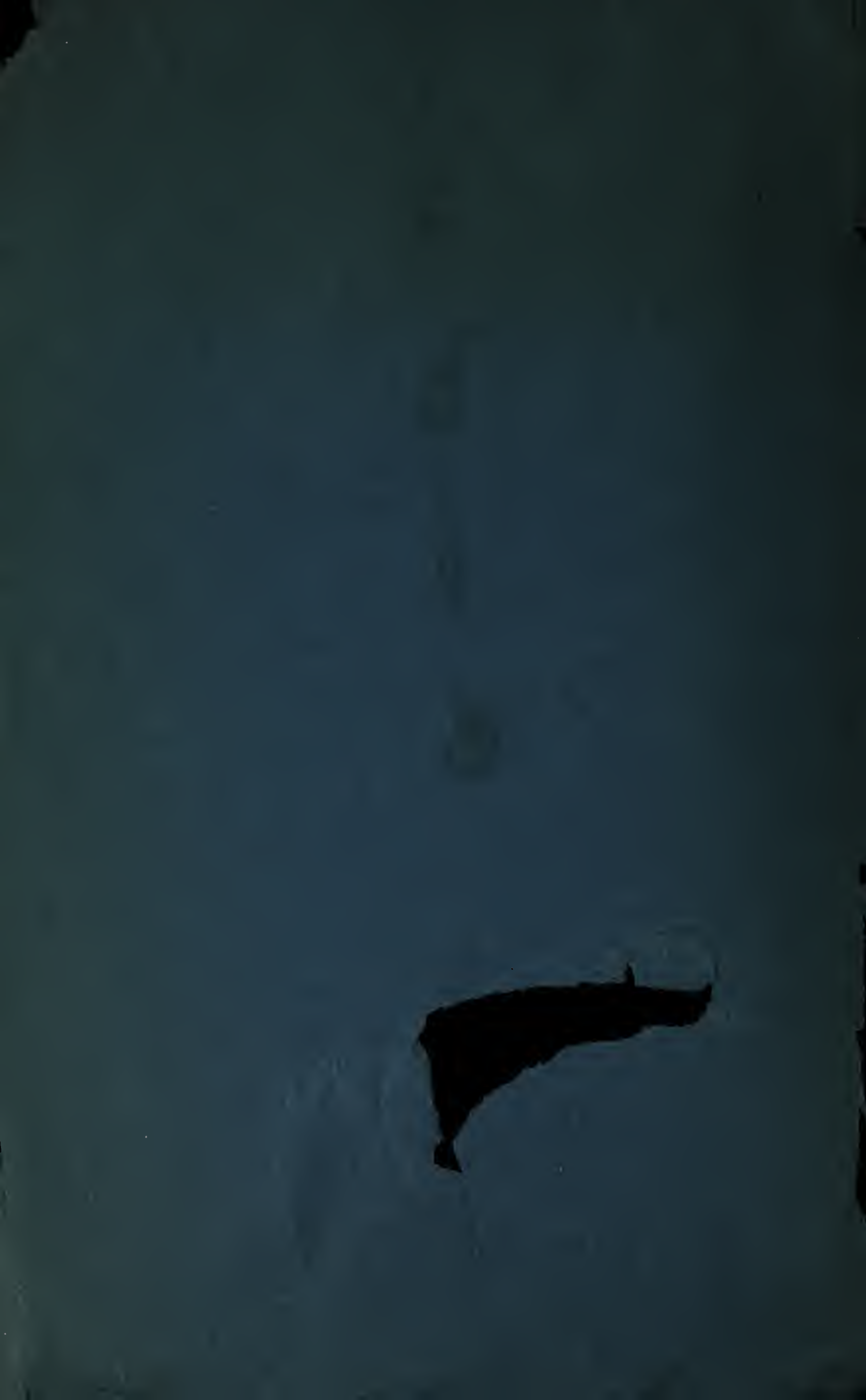
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ROCHDALE

L. BAKER, 10, Market Street, ROCHDALE, 1915.

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ROCHDALE:

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Preface.

To the Chairman and Members of the Health Committee of the County Borough of Rochdale.

GENTLEMEN,

I have the honour to submit to you my Sixth Annual Report on the health and sanitary conditions of this Borough, with which is incorporated the report on the Medical Inspection of School Children.

The war for the present has its impress on most things, and in consideration of its effects much of the conversion work and other schemes of improvement in housing conditions have been temporarily suspended. But on the other hand the Health Staff have responded well to the call to arms ; two of the Medical Assistants, two of the clerical staff, and four of the sanitary staff are now under military service.

But war not only affects local material progress, it puts to severe tests the resources and strength of the nations engaged ; and in this respect no ordeal in the nation's history, such as the present war, has ever brought into such stern prominence the supreme importance of the maintenance of an enterprising, vigorous and healthy race, whose character and strength is founded not only on physical but also on moral fitness. It is with this view that frequently in previous reports we have suggested that after half a century of administrative work Health and Educational Authorities might now profitably resort to the procedure so well known in the cotton industry as stock-taking, and consider if the results of this work are equal to anticipations and commensurate with the expenditure involved ; and if, in view of continually changing international conditions our present systems of education and health administration are still calculated to maintain the English race on the highest level of intellectual, industrial, physical and moral efficiency. In this retrospect it is now interesting, although it may be one of the few compensations of war, that the British Government have discovered the national necessity for more effective Public Health administration, and consequently decided that, whatever economies are to be, and ought to be, effected in other departments of State, the nation cannot afford to have any false economy in the departments of Public Health and Education. In pursuance of this new policy we learn from day to day of the deliberations of the central departments as expressed in the proposals for the setting up of new machinery, and the overhauling of the old, so as to secure more efficient organisation and closer co-operation in the departments of Health and Education and their bearing on the industries, progress, and well-being of the nation.

That all local authorities will recognise and appreciate the new spirit, and the new light that has been shed on the rising importance of their work can hardly be in doubt ; and it will devolve on Health Authorities to fully recognise that for effective and good work there must be thorough organisation for a definite purpose of all the powers and opportunities conferred by past and more especially by recent legislation.

In each preceding Annual Report we have written in some detail on different aspects of the Housing question, and endeavoured to show its close inter-relationship with public health. In the present issue we include no such article, as we recognise that during this crisis questions of housing must be temporarily suspended. But, we are not without hope, that after and through the war England in her new outlook, and when revaluations are being made, will set a very different value on the adequate and sanitary housing of the people.

One example, bearing directly on the importance of this question, may be cited. In recent years it was considered to be necessary in the immediate interests of necessitous school children to make provision for their medical inspection and treatment. But who does not recognise that this necessity is largely due to the unsatisfactory conditions of the homes of the people. Consequently, although it may appear to many that this work is of a necessitous and humane

character; yet, it would surely be false economy and against the cardinal principles of public health administration to go on spending public money in trying to ameliorate conditions and treat diseases which will persist and will recur so long as the primary causal conditions exist. The best interests of the Children and the State alike would be served, when all such disabilities, ailments, and diseases of school children are prevented, as they ought to be, in so far as prevention is possible, through proper education as regards the simple laws of health, combined with adequate and sanitary housing, with which is accompanied, just, but resolute public health administration.

The Report exhibits much the same form and arrangement as the previous reports, and is divided into four sections.

Section I. is largely statistical, including infantile mortality. The outstanding feature of our lower and more rapidly declining birth-rate and the different aspects of its present and potential effects on the population of the Borough has been discussed in previous reports.

Section II. deals with infectious disease and includes report on the work of the Tuberculosis Dispensary. But in order that the Dispensary report may serve for the purpose of the Annual Report, and as a report to the Local Insurance Committee, the subject matter is dealt with in greater detail, having due regard to the suggestions made by the Insurance Committee.

Section III. includes a summary of the Departmental Work, although, in the present issue, through lack of space, reports on water supplies, sewerage and sewage disposal, means and methods of house refuse and the fly peril, have been omitted.

Section IV. presents the Annual Report of the Medical Inspection of School Children, and has been prepared by Dr. Fulton.

STAFF CHANGE.—Dr. A. G. Fergus, M.B., CH.B. Edin., and Dr. J. Mertens, M.D., Brussels, have been temporarily appointed during the absence of Dr. G. Mitchell and Dr. T. F. S. Fulton on Military Service.

Finally, I have to acknowledge with much pleasure the devotion to duty and goodwill done by different members of the staff; to Mr. Schofield and Mr. Duncan I acknowledge the much extra time and work they have given in the preparation of this report.

I have the honour to be,

Gentlemen,

Your obedient Servant,

A. Anderson

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COUNTY BOROUGH OF ROCHDALE.

List of Local Acts and Adopted Acts in force in the Borough.

Local Acts.

- The Rochdale Waterworks Act, 1847.
- The Rochdale Improvement Act, 1853.
- The Rochdale Waterworks Act, 1866.
- The Rochdale Improvement Act, 1872.
- The Rochdale Improvement Act, 1875.
- The Rochdale Corporation Act, 1884.
- The Rochdale Corporation Water Act, 1898.
- The Rochdale Corporation Act, 1900.
- The Rochdale Corporation Act, 1908.

Adopted Acts.

- Infectious Disease (Notification) Act, 1889.
- Infectious Disease (Prevention) Act, 1890.
- Public Health Acts Amendment Act, 1890 (Parts 2, 3, 4, 5).
- The Notification of Births Act, 1907.
- Public Health Acts Amendment Act, 1907 :—
 - Sections adopted—
 - Sections 18, 20, 21, 22, 23, 24, 25, 26, 29, 32, and 33 comprised in Part II. ;
 - Sections 34, 35, 36, 37, 38, 45, 46, 49, 50, and 51 comprised in Part III. ;
 - Sections 52, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, and 68 comprised in Part IV. ;
 - Part V. ; and
 - Part VI.
 - Sections 78, 79, 81, 85, in Part VII. ;
 - Sections 88 and 89 in Part VIII.

COUNTY BOROUGH OF ROCHDALE

Summary of Statistics, Year 1914.

AREA OF THE BOROUGH	...	...	...	...	...	...	...	...	acres	6,446
POPULATION (Est. 1913)—Males 44,000 ; Females 50,320							...	...	...	94,320
NATURAL INCREASE OF POPULATION DURING THE YEAR						...	...	...	...	342
Census, 1911.	DENSITY	...	...	...	...	...	...	...	persons per acre	14·63
	NUMBER OF BUILDINGS USED AS DWELLINGS (No. Inhabited)	...	...	...	...	...	...	...	...	22,845
	(a) ORDINARY DWELLING-HOUSES	...	...	...	...	...	...	...	...	21,313
	(b) OTHER BUILDINGS (Shops, Hotels, Public Houses, &c.)	...	...	...	...	...	...	...	...	1,532
	AVERAGE NUMBER OF PERSONS PER INHABITED DWELLING—									
	(a) ORDINARY DWELLING-HOUSES	...	...	...	...	...	...	...	...	3·95
(b) ALL BUILDINGS (Including Shops, Hotels, Public Houses, &c.)	...	...	...	...	...	...	...	...	4·00	
NO. OF MARRIAGES RECORDED IN THE REGISTRATION DISTRICT OF ROCHDALE	...	...	...	...	...	...	...	...	...	884
MARRIAGE-RATE PER 1,000 OF ESTIMATED POPULATION	...	...	...	...	...	...	...	...	...	6·7
BIRTHS REGISTERED—Males 990 ; Females 889	...	...	...	...	...	...	...	...	...	1,879
BIRTH-RATE PER 1,000 OF ESTIMATED POPULATION, YEAR 1914	...	...	...	...	...	...	...	...	...	19·9
“ “ “ “ AVERAGE 10 years, 1904-1913	...	...	...	...	...	...	...	...	...	22·3
BIRTH-RATE PER 1,000 FEMALES AGED 15 TO 45 YEARS	...	...	...	...	...	...	...	...	...	73·7
DEATHS REGISTERED—Males 770 ; Females 767	...	...	...	...	...	...	...	...	...	1,537
DEATH-RATE (ALL CAUSES) PER 1,000 OF ESTIMATED POPULATION, Year 1914	...	...	...	...	...	...	...	...	...	16·3
“ “ “ “ AVERAGE 10 years, 1904-1913	...	...	...	...	...	...	...	...	...	16·4
SEVEN ZYMOTIC DISEASES—DEATH-RATE PER 1,000 OF POPULATION	...	...	...	...	...	...	...	...	...	1·70
RESPIRATORY DISEASES (Excluding Phthisis)—Death rate per 1,000 of Population	2·88
PHTHISIS	“	“	...	1·04
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SECTION I.

General and Vital Statistics.

POPULATION.

The estimated population of the Borough of Rochdale to the middle of 1914 was 94,320 ; males 44,000, females 50,320 ; This is the figure used by the Registrar General, and throughout this report for the purpose of calculating the birth, death and sickness rates. Compared with the estimate for the year 1913 there is an increase of 900. The actual Census figures of 1911 were 91,428 ; males 42,653, females 48,775. The natural increase of population—births over deaths, was 342.

Age Distribution.

The following Table shows the age distribution of the population, estimated on the assumption that the age constitution of the population at the Census 1911 has remained unchanged ; in comparison with the actual Census figures of 1901 and 1911.

Age Period	Census Figures				Estimate 1914	
	Census 1901	Per-centage	Census 1911	Per-centage	Number	Per-centage
Under 5 years	8,413	10.12	8,617	9.42	8,885	9.42
5—15 years	15,287	18.39	16,455	18.00	16,978	18.00
15—25 „	16,362	19.69	15,967	17.46	16,468	17.46
25—45 „	26,479	31.87	30,316	33.16	31,276	33.16
45—65 „	13,547	16.29	16,261	17.78	16,770	17.78
Over 65 years	3,026	3.64	3,822	4.18	3,943	4.18
TOTALS	83,114	100.00	91,428	100.00	94,320	100.00

AREA.

The Borough extends over an area of 6,446 acres, and the density is 14.63 persons per acre. The area and number of persons per acre in the different wards of the Borough is shown in the accompanying Table II.

HOUSING.

The following Table showing the number of houses erected in the different wards of the Borough during the past five years has been compiled from figures kindly supplied by the Borough Surveyor.

TABLE I.

WARD	Houses Erected				
	1914	1913	1912	1911	1910
CASTLETON EAST	22	18	33	28	19
CASTLETON SOUTH	22	76	10	17	32
CASTLETON NORTH	3	...	6	2	1
CASTLETON WEST	39	13	27	22	56
CASTLETON MOOR	28	27	30	61	48
SPOTLAND EAST .....	...	...	...	2	8
SPOTLAND WEST	36	56	32	19	44
WARDLEWORTH EAST	10	19	22	39	26
WARDLEWORTH WEST .....	...	3	6	11	21
WARDLEWORTH SOUTH	4	...	...	6	1
WUERDLE .....	...	7	44	27	8
THE BOROUGH.....	164	219	215	234	264

The average number of houses erected during the past five years 1909-1913 was 261, and for the preceding five years 1904-1908 the average was slightly less—253.

MARRIAGES.

In the Rochdale Registration district, which includes the five surrounding districts of Norden, Littleborough, Milnrow, Wardle and Whitworth, as well as Rochdale borough, with an aggregate population of 132,000, the number of marriages recorded were 884, or 139 less than the number during 1913, equal to a marriage-rate of 6.7 per 1,000 of population, as against 7.9 per 1,000 in 1913.

The marriages recorded in England and Wales during the same period were equal to a marriage-rate of 7.1 per 1,000 of population.

BIRTHS.

1,879 births (990 males, and 889 females) have been registered during 1914 as belonging to Rochdale; 1,861 of these occurred within the Borough, and the remaining 18 outside the Borough—in Dearnley Workhouse. These 1,879 births may be classified as follows in comparison with the figures for the preceding two years.

Year	Total No. of Births	Males	Females	Legitimate	Illegitimate	*No. of Inward Transfers
1911	1,920	951	969	1,813	107	22
1912	1,879	924	955	1,810	69	19
1913	1,938	947	991	1,832	106	21
1914	1,879	990	889	1,785	94	18

* Births returned by Registrar General as having occurred outside the Borough, but belonging to Rochdale.

The birth-rate for 1914 was 19.9 per 1,000 of population, the lowest on record, as against 20.7 during the previous year and an average of 22.3 for the ten years 1904-1913.

For the different quarters of the past year the number of births with their equivalent rate per 1,000 of population is shown below in comparison with two preceding years.

Quarter ending	No. of Births Registered			Equivalent Annual Birth-rate per 1,000 of Population		
	1914	1913	1912	1914	1913	1912
March 31st ...	491	489	509	21.1	21.3	22.1
June 30th ...	464	490	479	19.7	21.0	20.8
September 30th ...	501	481	455	21.1	20.4	19.6
December 31st ...	423	477	436	17.8	20.3	18.7

The following Table shows the number of births and birth-rate for each ward of the Borough during the past year. Wardleworth East Ward and Castleton East Ward had the highest birth-rate with 23.7 and 23.6 per 1,000 respectively. The lowest was Castleton North, 16.9 per 1,000.

TABLE II.
Chief Vital Statistics of each Ward of the Borough, 1914.

DISTRICT.	Popu-lation. (Est. to middle of 1914.)	Acre-age.	Density per Acre.	Births Regist'd	Deaths.					Infantile Mortality per 1000 Births Registered.	Rate per 1,000 of Est. Population.				
					Total.	Under one year of age.	From 7 Prin-cipal Zv-motic Dis-eases.	From Respi-ratory Dis-eases.	From Ph-thisis.		Births.	Deaths.	From 7 Prin-cipal Zv-motic Dis-eases.	From Respi-ratory Dis-eases.	From Ph-thisis.
THE BOROUGH ...	94320	6446	14.63	1879	1537	244	160	272	98	130	19.9	16.28	1.70	2.88	1.04
Castleton East Ward	11651	471	24.74	275	200	40	25	28	14	145	23.6	17.17	2.14	2.40	1.20
„ South „	11498	439	26.19	203	173	36	19	29	15	177	17.7	15.05	1.65	2.51	1.30
„ North „	4726	263	17.97	80	103	16	7	17	12	200	16.9	21.78	1.48	3.59	2.53
„ West „	9988	394	25.35	196	132	14	10	24	6	71	19.6	13.22	1.06	2.40	0.60
„ Moor „	9657	2261	4.27	170	116	19	15	16	9	112	17.6	12.01	1.55	1.65	0.93
Spotland East ...	7268	676	10.75	127	123	15	5	18	8	118	17.5	16.92	0.68	2.47	1.10
„ West ...	9431	746	12.64	185	145	22	14	30	7	119	19.6	15.37	1.48	3.18	0.74
Wardleworth East ...	6456	354	18.24	153	114	14	16	24	5	92	23.7	17.66	2.47	3.71	0.77
„ West ...	7232	296	24.43	153	152	24	18	30	6	157	21.2	21.02	2.48	4.14	0.82
„ South	8876	117	75.86	183	171	26	19	30	13	142	20.6	19.27	2.14	3.37	1.35
Wuerdle	7537	429	17.57	154	108	18	12	26	3	117	20.4	14.33	1.59	3.45	0.39

DEATHS.

1,537 deaths were registered during 1914 as belonging to Rochdale—males 770, females 767, and these numbers are made up as follows :—

Registered in the Borough	1,355
Deduct “ Non-Residents ” registered in the Borough	35
	1,320
*Add “ Residents ” registered outside the Borough	217
	1,537
Nett Total	1,537

*Including 157 deaths of Rochdale residents in Dearnley Workhouse and 60 deaths in other towns, chiefly in Nursing Homes, Hospitals and Asylums.

COUNTY BOROUGH OF ROCHDALE.
Population (Est. 1914) 94,320.
TABLE III.—Causes of, and Ages at Death during year 1914.
(Local Government Board Return)

Acreage 6,446.

CAUSES OF DEATH.	NETT DEATHS at the subjoined ages of "Residents," whether occurring in or beyond the District.										WARDS OF THE BOROUGH										Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District										
	All Ages		Under 1 year		1-2		2-5		5-15		15-25		25-45		45-65		65 years and over		Castleton North	Castleton South		Castleton East	Castleton West	Moore	Spotland East	Spotland West	Wardlith East	Wardlith West	Wardlith South	Wuerdle	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.													
ALL CAUSES (Certified / Uncertified)	757	751	140	98	42	45	34	43	25	32	29	33	94	104	192	219	174	204	100	170	195	126	113	120	140	114	152	170	108	79	
	13	16	2	4	...	...	1	...	...	1	1	...	1	2	5	5	3	4	3	3	5	6	3	3	5	...	...	1	...	1
1—Enteric Fever	3	3	...	...	...	...	...	1	...	...	1	...	1	1	1	1	...	...	...	...	1	1	2	...	...	1	...	...	...	4
2—Small-pox	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
3—Measles	28	28	10	5	8	12	9	9	1	2	...	...	...	...	...	...	...	...	2	7	12	2	3	2	4	5	7	9	3	...
4—Scarlet Fever	2	3	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
5—Whooping Cough	15	26	6	15	9	3	1	8	4	4	...	...	...	...	...	...	...	...	1	5	5	5	5	...	...	...	...	...	...	9
6—Diphtheria and Croup	9	15	...	...	...	...	5	8	...	...	1	...	...	...	...	...	...	...	2	2	2	2	2	1	...	...	...	...	...	...
7—Influenza	3	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	1	...	...	...	...	...	...	...	...
8—Erysipelas	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...
9—Phthisis (Pulmonary Tuberculosis)	51	47	...	...	...	...	1	...	...	2	5	11	23	20	18	10	3	3	12	15	14	6	9	8	7	5	6	13	3	3
10—Tuberculous Meningitis	7	8	2	1	...	...	3	2	1	5	3	2	4	...	...	...	...	...	1	3	1	...	2	1	...	...	...	...	...	1
11—Other Tuberculous Diseases	14	9	1	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	1	...	4	...	3	1	...	...	...	...	...	2
12—Cancer, malignant disease	49	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	12	14	11	10	9	7	10	10	9	7	7
13—Rheumatic Fever	7	7	...	...	...	...	1	...	...	2	2	1	2	1	...	...	...	...	2	1	1	1	...	3	4	...	...	...	...	...
14—Meningitis	6	5	2	...	...	...	...	...	...	1	1	1	1	1	...	...	...	...	1	...	1	2	...	...	...	...	...	...	...	...
15—Organic Heart Disease	70	62	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	12	18	10	10	13	21	8	15	7	8	1
16—Bronchitis	57	75	6	7	1	1	1	...	...	3	1	1	2	3	20	24	24	36	7	13	13	8	8	14	12	7	17	20	13	...
17—Pneumonia (all forms)	62	50	15	10	11	13	3	5	4	5	4	1	5	3	12	4	8	9	8	14	10	12	6	4	14	12	14	8	10	4	
18—Other Diseases of Respiratory organs	18	10	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	2	5	4	2	...	...	...	...	...	...	2
19—Diarrhoea and Enteritis	26	16	15	10	1	...	3	1	2	1	...	...	1	...	2	2	2	2	4	5	8	4	3	2	3	...	...	...	...	1
20—Appendicitis and Typhilitis	3	4	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	6
21—Cirrhosis of Liver	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21A—Alcoholism	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
22—Nephritis and Brights Disease	29	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	...	6	6	4	...	...	...	...	...	...
23—Puerperal Fever	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24—Other Accidents and Diseases of Pregnancy and Parturition	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25—Congenital Debility and Malformation incl'g Premature Birth	48	39	48	39	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	14	15	6	6	10	4	6	9	8	4	...
26—Violent Deaths, excluding suicides	21	10	1	...	...	...	1	2	1	1	3	1	5	1	8	5	2	...	3	4	...	3	4	1	2	1	3	5	5	...
27—Suicides	4	4	...	...	...	...	...	...	...	...	...	...	1	1	3	2	...	1	...	...	...	1	1	...	...	...	...	...	...	...
28—OTHER DEFINED DISEASES :—	22	27	6	2	3	3	1	1	...	...	...	...	...	...	...	...	...	...	1	6	6	6	5	5	...	...	...	...	...	...
General Diseases	74	60	16	3	4	3	...	2	...	...	...	...	...	...	...	...	...	...	9	17	12	17	10	14	5	3	7	5	...	2
Diseases of Nervous System and of Organs of Special Sense	22	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Circulatory System	20	32	2	1	1	1	2	1	1	1	1	1	3	3	17	7	3	14	4	5	7	3	4	5	5	3	6	4	2	2	
Diseases of the Digestive System	11	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Non-Veneral Disease of Genito-Urinary System and Annexa	5	3	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Skin and of the Cellular Tissue	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Bones and of the Organs of Locomotion	4	3	4	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Early Infancy	56	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Old Age	17	16	2	2	2	3	1	...	1	...	1	1	5	5	5	4	...	1	3	5	6	2	1	3	2	4	2	5	...	2	
29—Diseases Ill-defined or Unknown
YEARLY TOTAL	770	767	142	102	42	45	35	43	25	33	30	33	95	106	224	197	177	208	103	173	200	132	116	123	145	114	152	171	108	80	
																			1537												

The death-rate from All-causes is thus 16·3 per 1,000 of population as compared with 15·4 per 1,000 during 1913. This increase in the death-rate is almost entirely due to the high mortality from zymotic diseases, chiefly Measles, Whooping Cough and Diphtheria. The average corresponding rate for the preceding ten years (1903-12) was 16·6 per 1,000.

In the following Table are given the deaths during each quarter of the year 1914 and two preceding years, along with their respective death-rates.

Quarter ending	No. of Deaths			Equivalent Annual Death-rate per 1,000 of Population		
	1914	1913	1912	1914	1913	1912
March 31st ...	478	400	429	21·5	17·4	18·6
June 30th ...	424	335	327	18·0	14·4	14·2
September 30th ...	301	323	296	12·5	13·9	12·7
December 31st ...	334	371	332	14·0	14·8	14·3

Ward Death-rates.

According to Table II. Castleton North Ward had the highest death-rate from All-causes, 21·8 per 1,000, Wardleworth West coming next with 21·0 per 1,000. Castleton Moor Ward had the lowest rate with 12·0 per 1,000.

Classification of Causes of Death.

The deaths distributed in Table III. according to cause, age, and sex, have been classified according to the International list of causes of death which is now in use by the various Health Authorities throughout England and Wales.

Chief Causes of Death.

The chief causes of the deaths registered in Rochdale during the past year 1914 and the preceding year 1913 may be classed to a dozen headings given in the Table below. 1,078 or 70 per cent., of the total deaths during 1914 are thus recorded here, and these are stated separately in proportion to the total deaths from All-causes along with the respective death-rates.

Chief Cause of Death	No. of Deaths		Proportion per 100 deaths from All Causes		Death-rate per 1,000 of Population	
	1914	1913	1914	1913	1914	1913
Measles	56	9	3·6	0·6	0·60	0·09
Whooping Cough	42	3	2·7	0·2	0·44	0·03
Diarrhœa & Enteritis	42	64	2·7	4·5	0·44	0·70
Cerebral Hæmorrhage, and Apoplexy	61	75	3·9	5·2	0·64	0·75
Phthisis or Pulmonary Tuberculosis	98	103	6·4	7·2	1·04	1·10
Other Tubercular Diseases	38	31	2·5	2·2	0·40	0·33
Cancer	106	119	6·9	8·3	1·12	1·27
Organic Heart Disease	132	132	8·6	9·2	1·40	1·41
Bronchitis	132	147	8·6	10·3	1·40	1·57
Pneumonia (all forms)	112	79	7·3	5·5	1·20	0·85
Nephritis and Brights Disease	56	43	3·6	3·0	0·60	0·46
Premature Birth	42	49	2·7	3·4	0·44	0·52
Atrophy, Debility, and Marasmus... ..	38	32	2·5	2·2	0·40	0·34
Old Age	123	127	8·0	8·9	1·30	1·36

Mortality at different Ages.

The deaths registered during the past year are arranged below according to the age period, in comparison with the two preceding years.

Age Period	No. of Deaths			Percentage of Total Deaths		
	1914	1913	1912	1914	1913	1912
Under 1 year	244	206	209	15.9	14.4	15.1
1—2 years	87	72	58	5.7	5.0	4.2
2—5 „	78	44	57	5.1	3.1	4.1
5—15 „	58	40	47	3.8	2.8	3.4
15—25 „	63	55	63	4.1	3.8	4.6
25—45 „	201	176	190	13.1	12.3	13.7
45—65 „	421	440	367	27.4	30.7	26.5
65 years and over ...	385	401	393	25.0	28.0	28.4

Mortality in previous years.

The following Table IV. shows the birth-rate, infantile death-rate, and the death-rate from all causes in Rochdale during each of the past eleven years ; also the number of transferable deaths in each year. The figures in column 9 of this Table—Deaths of residents not registered in the district—refer to deaths in Dearnley Workhouse (157) and in other Towns (60), who were previously resident in the Borough.

TABLE IV.
Vital Statistics of Whole District during 1914 and previous years.
Local Government Board Return.

YEAR	Population estimated to Middle of each Year	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS ‡		NETT DEATHS BELONGING TO THE DISTRICT			
		Un-corrected Number	Nett		Number	•Rate	Of Non-residents registered in the District	Of Residents not registered in the District	Under 1 year of age*		At all Ages	
			Number	•Rate					Number	Rate per 1,000 Nett Births	Number	•Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1904	85,732	...	1,950	22.7	1,381	16.1	12	148	295	151	1,517	17.7
1905	86,554	...	1,880	21.7	1,305	15.1	13	151	250	133	1,443	16.7
1906	87,385	...	2,058	23.6	1,379	15.8	15	167	284	139	1,531	17.5
1907	88,223	...	2,097	23.8	1,340	15.2	11	164	253	121	1,493	16.9
1908	89,068	...	2,202	24.7	1,482	16.6	13	163	371	168	1,632	18.3
1909	89,922	...	2,063	22.9	1,301	14.5	17	158	210	102	1,442	16.0
1910	90,785	...	1,981	21.8	1,219	13.4	21	163	204	103	1,361	15.0
1911	91,645	1,898	1,920	20.9	1,240	13.5	19	183	268	140	1,404	15.3
1912	92,530	1,860	1,879	20.3	1,190	12.9	22	216	209	111	1,384	15.0
1913	93,420	1,917	1,938	20.7	1,238	13.3	27	223	206	106	1,434	15.4
Averages for years 1904-1913	89,526	...	1,997	22.3	1,308	14.6	17	174	255	127	1,464	16.4
1914	94,320	1,861	1,879	19.9	1,355	14.4	35	216	244	130	1,537	16.3

See opposite page for Notes.

Comparative Death-rates.

We are indebted to the Medical Officers of Health of the various districts for the information contained in the following Table, which affords an interesting comparison of the birth-rate and chief mortality rates in Rochdale and the neighbouring manufacturing towns. In making these comparisons one has always to bear in mind the fact that the mortality from all causes and from different diseases varies to some degree with age and sex distribution in the different areas compared, and it therefore follows that crude death-rates computed without allowance for those variations in the different towns do not form so reliable a basis of comparison as rates which have been corrected or standardized for age and sex constitution of the population.

The death-rates from all causes shown in the following Table have accordingly been corrected in respect of the age and sex.

TABLE V.—Births and Mortality Rates in Neighbouring Towns during 1914.

Town	Estimated Population	Birth-rate per 1,000 of Est. Pop.	Death-Rate All Causes Standardised	Rates per 1000 of Estimated Population.					
				Death-rate All Causes (crude)	Seven Zymotic Dis. (incl. Diarr. and Enteritis under 2 yrs.)	Pulmonary Tuberculosis	Other forms of Tuberculosis	Respiratory Diseases (excluding Phthisis)	
Blackburn	134,323	20·8	16·1	14·9	0·69	0·92	0·22	3·26	
Bolton	185,247	22·1	15·8	14·6	1·66	0·90	0·29	3·00	
Burnley	110,040	23·5	18·1	16·4	2·49	1·02	0·26	3·77	
Halifax	102,000	17·5	15·0	14·7	0·81	1·20	0·35	2·20	
Huddersfield	112,265	18·1	15·4	14·7	0·87	0·77	0·20	2·88	
Oldham	151,044	23·0	20·3	18·8	2·50	1·20	0·30	3·30	
Stockport	126,040	21·6	16·0	15·1	1·10	1·19	0·46	2·94	
St. Helens	100,775	33·3	18·4	17·1	1·62	1·12	0·64	3·93	
Warrington	74,909	29·7	17·5	16·2	2·00	1·72	0·44	2·70	
Wigan	92,868	29·2	19·0	17·1	2·40	0·95	0·31	4·13	
AVERAGE 10 TOWNS	.....	23·9	17·2	16·0	1·61	1·10	0·35	3·21	
ROCHDALE	94,320	19·9	17·3	16·3	1·70	1·04	0·40	2·88	

Notes appertaining to Table IV.

* Rates per 1,000 of Estimated Population.

‡ "Transferable deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (b) below.

The following special cases arise as to Transferable Deaths:—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) are regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement are referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

CENSUS 1911:—Total population at all ages, 91,428. Area of District in acres (land and inland water) 6,446. Total families or separate occupiers, 22,979.

TABLE VI.—Meteorology, 1914.

MONTH	Mean Barometric Pressure (reduced).	Temperature.		Mean Humidity (Sat. 100)	Rain		Wind.	
		Mean	Daily Range		No. of days it fell.	Amount	Prevailing Directions	Velocity—Miles per hour
January	†30.173	†37.6	†8.8	91.4	22	S. AND R. 3.940	N.E., S.W.	5.8
February	29.690	42.4	10.8	90.1	21	3.035	S.W., S.	†7.5
March	29.596	41.6	10.9	88.8	†31	S. AND R. 5.765	S.W., N.E.	6.4
April	30.081	48.9	†15.3	75.4	†13	†1.705	S.W., N.E.	5.9
May	30.122	49.6	12.3	80.5	17	2.495	S.W., N.E.	4.8
June	30.106	*56.1	*14.2	†73.6	15	3.020	S.W., N.E.	4.6
July	29.894	*58.7	*14.0	78.6	21	4.835	S.W., N.E.	3.6
August	30.028	*†59.4	*13.9	84.4	16	3.565	S.W., N.E.	†2.4
September	30.089	*52.9	*12.9	83.8	14	3.880	S.W., N.E.	5.3
October	30.061	*49.0	*11.8	90.1	16	2.580	N.E., S.W.	3.7
November	29.872	43.6	10.8	†91.6	23	S. AND R. 5.915	S.W., N.E.	5.7
December	†29.581	39.2	10.0	91.5	30	S. AND R. †6.610	S.W., N.E.	6.6
Yearly Average ...	29.941	48.3	12.1	85.0	Total 239	Total S. AND R. 47.375	S.W., N.E.	5.2
Average for 5 years 1909-1913	29.921	47.4	12.0	84.9	227	46.319	S.W., N.E.	5.7

* Averages for 5 years 1909-1913.

† Lowest.

† Highest.

S. AND R. indicates Snow and Rain.

Meteorology.

The above Table VI. shows the meteorological readings recorded at the Broadfield Park Observatory during each month of 1914, compared with the average for five years 1909—1913. The weather during the past year was wetter than usual with over 47 inches of rain, or nearly 8 inches more than during 1913. This is shown graphically on the accompanying Chart for each week of the year, correlated with the weekly mortality and the four-foot earth temperature.

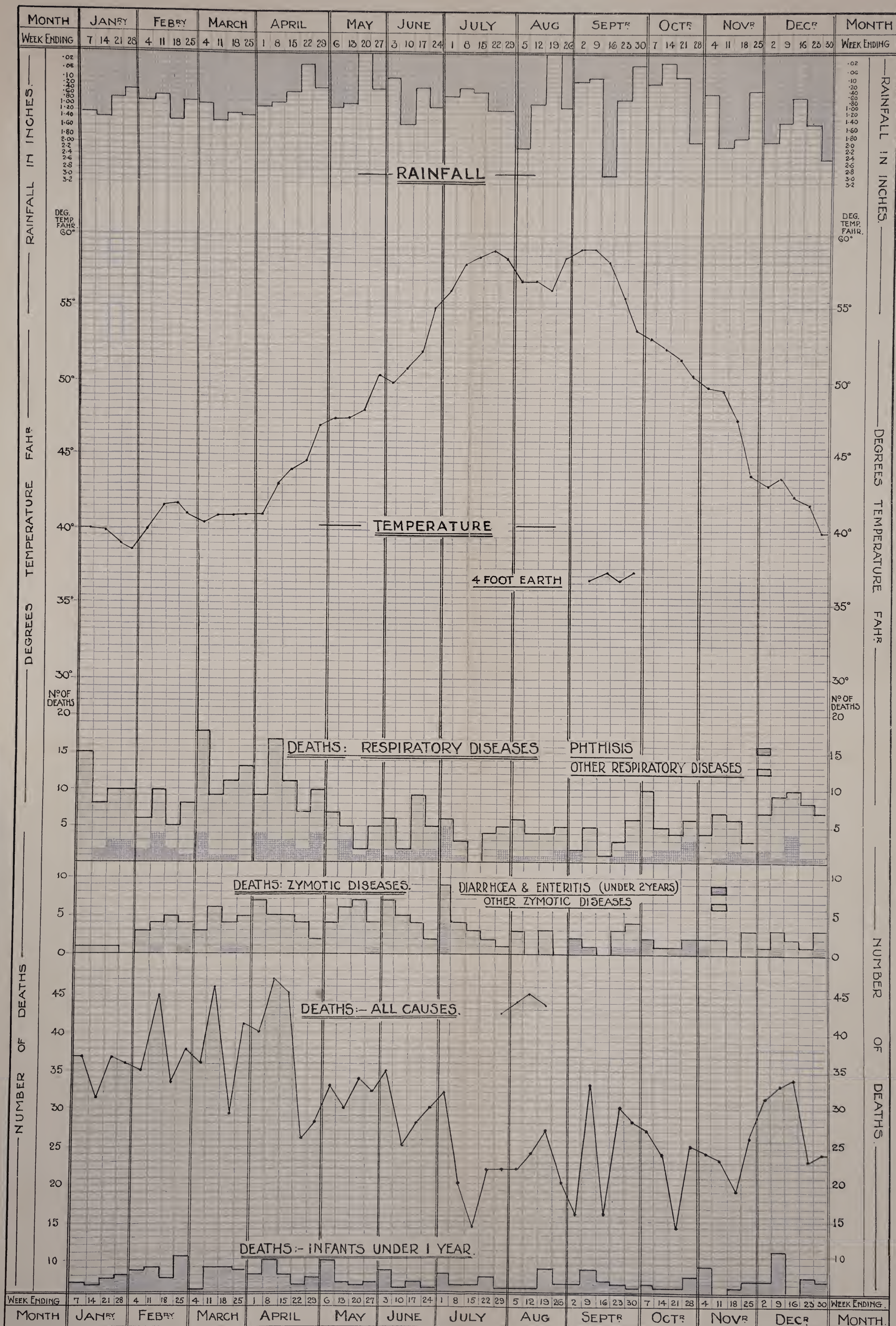
Notes on Chart.

The accompanying Chart A compared with the corresponding Chart of 1913 shows the following :—

	Year 1914	Year 1913
Highest weekly death-rate from All-causes ...	... 2nd week Feb. (45 deaths) 2nd week Mar. (46 deaths) 2nd & 3rd week April (45 and 47 deaths)	... 3rd week Sep. (39 deaths) 2nd week Nov. (39 deaths)
Lowest weekly death-rate from All-causes ...	... 2nd week July (14 deaths) 3rd week Oct. (14 deaths)	... 2nd week June (14 deaths) 3rd week Oct. (16 deaths)

COUNTY BOROUGH OF ROCHDALE.

GRAPHIC CHART A. WEEKLY NUMBER OF DEATHS & METEOROLOGY 1914.



The high death-rate during the months of February, March and April of 1914, shown on chart, was almost entirely due to the zymotic diseases, chiefly Measles and Whooping Cough, and to respiratory diseases.

The four-foot earth temperature curve was similar in both 1914 and 1913 except that during 1914 it was a little more irregular during the months of July, August and September than in 1913. The weekly rainfall shows no great variation except the fall is generally heavier.

INFANTILE MORTALITY.

244 deaths of infants under one year of age have been registered during 1914—142 males and 102 females, as against 206 in the preceding year.

Of the deaths during 1914, 25 were illegitimate births, and of the whole 111 were insured.

In Table VII. the deaths have been arranged and classified according to age, sex, cause of death and method of feeding; while the number of deaths at each age-period, and from each cause during 1914 are compared with 1913 and with the averages for the preceding five years 1909-1913.

The chief causes of death along with the method of feeding in each case are tabulated below.

Cause of Death	No. of Deaths	Method of Feeding			No Food	Percentage of Total Deaths under one year of age	Proportion per 1,000 Births registered
		Breast	Breast and Bottle	Bottle			
Premature Birth	42	9	2	4	27	17.2	22.3
Debility and Marasmus	38	8	3	18	9	15.6	20.2
Broncho-Pneumonia	23	6	5	12	...	9.4	12.2
Whooping Cough	21	7	5	9	...	8.7	11.2
Convulsions	18	4	5	6	3	7.4	9.6
Measles	15	2	8	5	...	6.7	8.5
Bronchitis	13	4	3	6	...	5.3	6.9
Diarrhœa (Incl. Epd. Enteritis)...	13	1	...	12	...	5.3	6.9
Enteritis	12	2	2	8	...	4.9	6.4

These nine causes of death were responsible for 195 or nearly 80.0 per cent. of the total infant deaths.

The method of feeding adopted for the infants who died during 1914 is given below in comparison with the corresponding figures for 1911, 1912 and 1913.

Year	Total Deaths	Method of Feeding				*No Food	
		Breast		†Bottle		No.	Per cent.
		No.	Per cent.	No.	Per cent.		
1914	244	56	23.0	138	56.5	50	20.5
1913	206	37	18.0	116	56.3	53	25.7
1912	209	41	19.6	120	57.4	48	23.0
1911	268	53	19.8	165	61.6	50	18.6

*Death occurred chiefly during first week of life before any system of feeding could be well established.

†Included those fed both breast and bottle.

Calculated per 1,000 births registered, the infantile mortality during the past year 1914 was 130, as compared with 106 per 1,000 births during previous year. The average for the preceding ten years 1904-1913 was 127.

TABLE VII.—INFANTILE MORTALITY DURING 1914.—

CAUSE OF DEATH.			TOTAL DEATHS	SEX.		LEGITIMATE	ILLEGITIMATE	INSURED	FEEDING			
				MALE	FEMALE				Breast	Bottle	Breast and Bottle	No Food
ALL CAUSES ...	{	CERTIFIED	238	140	98	213	25	110	55	96	38	49
		UNCERTIFIED	6	2	4	6	...	1	1	4	...	1
METHOD OF FEEDING	{	Breast.....	56	35	21	54	2	14	56	...	...	...
		Bottle.....	100	51	49	86	14	64	...	100	...	...
		Breast and Bottle.....	38	22	16	36	2	31	...	...	38	...
		No Food.....	50	34	16	43	7	...	...	...	...	50
(1) COMMON INFECTIOUS DISEASES.....			36	16	20	33	3	30	9	14	13	...
(2) DISEASES OF EARLY INFANCY			94	53	41	79	15	12	19	23	6	46
(3) DIARRHÆAL AND DIGESTIVE DISEASES			28	16	12	26	2	16	3	21	3	1
(4) TUBERCULAR DISEASES.....			6	3	3	6	...	4	...	5	1	...
(5) RESPIRATORY DISEASES.....			40	23	17	37	3	33	10	21	9	...
(6) OTHER CAUSES			40	31	9	38	2	16	15	16	6	3
(1) COMMON INFECTIOUS DISEASES	{	Chicken Pox .....	...	...	...	...	...	...	...	...	...	...
		Measles	15	10	5	13	2	15	2	5	8	...
		Whooping Cough	21	6	15	20	1	15	7	9	5	...
		Scarlet Fever.....	...	...	...	...	...	...	...	...	...	...
		Diphtheria .....	...	...	...	...	...	...	...	...	...	...
(2) DISEASES OF EARLY INFANCY	{	Congenital Malformations	7	2	5	7	...	...	2	1	...	4
		Premature Birth	42	23	19	37	5	4	9	4	2	27
		Atrophy, Debility, Marasmus.....	38	23	15	31	7	8	8	18	3	9
		Injury at Birth	3	2	1	2	1	...	...	...	...	3
		Atelectasis	2	1	1	1	1	...	...	...	...	2
Other Diseases of Early Infancy			2	1	1	1	1	...	...	1	1	
(3) DIARRHÆAL AND DIGESTIVE DISEASES	{	Diarrhœa (including Epid. Enteritis)	13	8	5	12	1	9	1	12	...	...
		Enteritis.....	12	7	5	11	1	6	2	8	2	...
		Gastritis	1	...	1	1	...	...	...	1	...	...
		Other Diseases of Digestive System.....	2	2	...	2	...	1	...	...	1	1
(4) TUBERCULAR DISEASES	{	Tuberculous Meningitis	3	2	1	3	...	2	...	3	...	...
		Abdominal Tuberculosis (incl. Tub. Ent.)	2	...	2	2	...	2	...	2	...	...
		Other Tuberculous Diseases	1	1	...	1	...	...	...	...	1	...
(5) RESPIRATORY DISEASES	{	Bronchitis	13	6	7	12	1	10	4	6	3	...
		Broncho Pneumonia	23	13	10	21	2	21	6	12	5	...
		Pneumonia (Other Forms)	2	2	...	2	...	2	...	1	1	...
		Other Diseases of Respiratory Organs	2	2	...	2	...	...	...	2	...	...
(6) OTHER CAUSES	{	Convulsions (including Convs. with Dentn.).....	18	15	3	18	...	9	4	6	5	3
		Dentition	3	1	2	3	...	2	1	2	...	...
		Meningitis (not Tubercular)	2	2	...	2	...	1	1	1	...	...
		Syphilis.....	7	5	2	5	2	...	3	4	...	...
		Rickets	1	1	...	1	...	1	...	...	1	...
		Suffocation, Overlaying	1	1	...	1	...	1	...	...	...	...
		Other Causes	8	6	2	8	...	2	5	3	...	...
ALL CAUSES—TOTALS.....			244	142	102	219	25	111	56	100	38	50
AVERAGE 5 YEARS, 1909-1913			219.4	120.6	98.8	197.2	22.2	95.8	40.2	123.4		52.8

NETT BIRTHS IN THE YEAR { Legitimate, 1,785
 { Illegitimate, 94

† Figures not available.

Deaths from stated causes at various ages under 1 year of age.

[illegible]

* Average 3 years 1911-1913.

NETT DEATHS IN THE YEAR OF { Legitimate Infants, 219
 { Illegitimate Infants, 25

The infant death-rate for each quarter of 1914 and for the two preceding years is shown below.

Quarter ending	No. of Births Registered			No. of Deaths of Infants under 1 year			Infant Death-rate per 1,000 Births		
	191	1913	1912	1914	1913	1912	1914	1913	1912
March 31st ...	491	489	508	78	42	66	159	86	130
June 30th ...	464	490	479	63	41	55	142	84	115
September 30th ...	501	481	455	47	57	44	94	118	97
December 31st ...	423	477	436	53	66	44	125	140	101

Comparative Rates.

The following Table showing the infant death-rates in the neighbouring towns, has been compiled from figures kindly supplied by the various Medical Officers of Health.

TABLE VIII.

Town	Infantile Death-rate per 1,000 Births Registered		
	1914	1913	Average for 5 years 1909-1913
Blackburn	116	147	143
Bolton	118	142	128
Burnley	158	174	171
Halifax	103	103	99
Huddersfield	112	103	105
Oldham	136	133	132
Stockport	124	146	139
St. Helens	138	155	142
Warrington	111	131	122
Wigan	139	179	160
AVERAGE 10 TOWNS	126	142	134
ROCHDALE	130	106	127

A study of Table VII. with the smaller table on comparative rates will indicate the position of Rochdale as regards infantile mortality. During the past quinquennium 1909-1913, the average for this period is shown to be 127, as compared with an average of 134 for the neighbouring manufacturing towns, and as compared with an average infantile mortality, in Rochdale, of 142 for the previous quinquennium 1904-1908. And this compares very favourably with similar manufacturing towns. It is then all the more to be regretted that our good record has been temporarily vitiated by the infantile mortality figure for the past year 1914, which is 130 as compared with 106 for the previous year 1913. But a study of Table VII. and the section on Epidemic Infectious Diseases will show that this unfavourable result is entirely due to those waves of infectious disease which periodically sweep across the land and from the ravages of which no community is exempt. Measles and Whooping Cough were very prevalent during the past year, as has been described under infectious diseases, and as will be seen from Table VII., were the direct cause of 36 deaths as compared with 19 during the previous year and an average of 10 during the preceding five years. But this is not all the mischief. Indirectly these infectious diseases were the cause of the much higher mortality during the past year from respiratory diseases, which is seen to be 40 as compared with 25 for the previous year.

The subject of infantile mortality is so closely associated with, and to some extent forms an index of the efficiency of Public Health Administrations, that no nation can now afford to treat this subject with the indifference of the past, inasmuch as it affects the general health progress and well-being of every nation.

In previous reports the subject has been so fully discussed that it would be superfluous to go on playing with words, when the stern exigencies of the nation calls for action. On every hoarding the picture waits to meet the eye, "Men, more men and still more men are wanted," but in a sense "the child is father to the man," and who can think of this hideous war without contemplating the many possibilities of its effects on the race.

In a country such as ours, with its voluntary system of military service, the race in the strict biological sense must inevitably suffer in war far more than in a country where conscription prevails, although of the relative merits of the two systems as a whole we hold no opinions. There may be worse things than war, they are few, and even war may have its compensations, but the abominations and horrors of war were never better described than by John Bright, when he asked and answered that question in words that have often been repeated. Still, under the system of conscription, it may be said at once that within certain limits the fit and the unfit suffer alike; whereas under the voluntary system, the country's call, and in proportion as the cause is just and inspiring, will always call to arms a very large proportion of the more courageous, the more virile, the more patriotic and the simply brave—men of mind and character equally strong and generous. Further, as the finest companies are set to the most hazardous operations, and as the more conspicuously brave take the greater risks, the death-toll amongst these will be correspondingly high. Thus, in the making of our army and the prosecution of the war there is going on a process of discriminate selection, which must inevitably tend to the impoverishment of the race. But it may be argued, and it is so, that many as good men as go to the war remain at home and must remain so, as their greatest service to the state is to keep things going as usual. Still the important fact remains that in this country there is apparently a large section of the available population, some of whom may be of the type of peace at any price, and others who either cannot fight or will not fight. But as all such stay at home, their ranks are not thinned nor pruned by the wastages of war. Hence the biological outlook must be, that the disproportionate death-rate between the combatants and the non-combatants provides some measure of the extent to which the natural inheritance of the country will be the poorer, and the race impoverished thereby, due to a reversed selection of the stock of possible parents. In this respect history provides ample evidence, but one need only advert to the more recent lessons and effects of the Franco-Prussian War.

But turning for a moment from the pure biological to the economic aspect, after the war things cannot be as they were. The unprecedented and unproductive national expenditure on this war must entail great economies on the industrial and professional middle classes on whom the burden of taxation falls heaviest. Is this again not unlikely to lead to many revaluations of things and considerable change in public sentiment? But herein lies a great opportunity for health authorities, by availing themselves of the ever extending scope of the field of their administrative powers and responsibilities, to take a greater controlling and sympathetic interest in everything that pertains to the housing and social conditions of the people, and thereby to be in a position to more cordially invite and to encourage the people to recognise that, while there may be patriotism in dying for one's country, there is no less patriotism in endeavouring to maintain the integrity of the race both as regards numbers and fitness. For it is very evident that, more than ever after the war, the future position and progress of England, as well as every other nation, will depend more and more on the character of the race, in the widest sense, both as regards physical and moral fitness.

If then, in addition to our too high infantile mortality which ought to be reduced by one half, but with which the public conscience tends to become blunted through age and familiarity, we are losing in the prime of manhood great numbers of the stock which the nation can ill afford to lose, surely all questions bearing on the preservation of infant life at once become of greater and urgent importance.

In this respect one may learn many lessons from the war itself. The great cause for which Britain and her Allies are fighting must triumph, else we perish. The war must be won. But to win the war it is now seriously recognised that there must be thorough organisation of all available forces; so likewise to reduce our too high infantile mortality, with its accompanying morbidity, which everyone recognises as a blot on our public health administration, I venture to think that the same constructive policy of thorough organisation and co-ordination of all the available forces both statutory, auxiliary and voluntary, will be found to be the most effective procedure, and without which in the past much of our labour has been in vain. In this respect one welcomes the circular letter of the Local Government Board of date the 30th July, 1914, on Maternity and Child Welfare Centres, the accompanying Memorandum of which is as follows—

COPY OF MEMORANDUM re MATERNITY AND CHILD WELFARE.

A complete scheme would comprise the following elements, each of which will, in this connection, be organised in its direct bearing on infantile health.

1.—Arrangements for the local supervision of Midwives.

2.—Arrangements for—

- | | | |
|------------|---|---|
| Ante-Natal | { | (1) An Ante-natal Clinic for expectant mothers. |
| | | (2) The home visiting of expectant mothers. |
| | | (3) A Maternity Hospital or beds at a Hospital in which complicated cases of pregnancy can receive treatment. |

3.—Arrangements for—

- | | | |
|-------|---|--|
| Natal | { | (1) Such assistance as may be needed to ensure the mother having skilled and prompt attention during confinement at home. |
| | | (2) The confinement of sick women, including women having contracted pelvis or suffering from any other condition involving danger to the mother or infant, at a Hospital. |

4.—Arrangements for—

- | | | |
|------------|---|---|
| Post-Natal | { | (1) The treatment in a Hospital of complications arising after parturition, whether in the mother or in the infant. |
| | | (2) The provision of systematic advice and treatment for infants at a Baby Clinic or Infant Dispensary. |
| | | (3) The continuance of these Clinics and Dispensaries so as to be available for children up to the age when they are entered on a school register, <i>i.e.</i> , the register of a Public Elementary School, Nursery School, Crèche, Day Nursery, School for Mothers or other school. |
| | | (4) The systematic home visitation of infants and of children not on a school register as above defined. |

LOCAL GOVERNMENT BOARD
WHITEHALL, S.W.
July, 1914.

There is here at last the recognition of the value of organisation; and there is the hope that a beginning will now be made on organised and definite lines for the attainment of a definite object; and further, that the Maternity and Child Welfare Centre may become a unifying and co-ordinating centre in its own sphere of activities, of no less importance than the Tuberculosis Dispensary in the crusade against Tuberculosis. It may be added that half the approved expenses in conducting such an institution are refunded to the Local Authority by the Local Government Board.

The position, function, and scope of field of work of the Maternity and Child Welfare Centre in the Public Health Service is discussed in the report of 1913, and it may be added that the passing into law of the Notifications of Births (Extension) Act, 1914, will considerably enhance the importance of the Maternity Centre, besides conferring greater powers and opportunities on Health Authorities as well as providing grants for administrative purposes.

It may be added that in a great industrial centre such as Rochdale, with its large industrial population, such an institution, with which might be provided a small pavilion, which would serve as a Hospital for sick children is eminently desirable and would be of incalculable benefit to many.

SECTION II.

Infectious Disease.

For the purpose of this section of the Report, the various notifications and returns of cases of infectious disease have been analysed, and Tables III. and IV. have been prepared to show the age, seasonal and ward incidence of certain infectious diseases. The diseases thus considered are—Small-pox, Scarlet Fever, Diphtheria, Typhus Fever, Typhoid Fever, Puerperal Fever, and Erysipelas, Acute Poliomyelitis, Cerebro-Spinal Fever, and Ophthalmia Neonatorum (compulsorily notifiable by law throughout England and Wales) ; and Measles, Whooping Cough and Chicken-pox, which are not compulsorily notifiable. Phthisis and other Tubercular diseases are also considered, while statistics relating to deaths from Influenza, Bronchitis and Pneumonia are set out in these Tables. A statement of the morbidity and mortality of infectious diseases during each year from 1894-1914 inclusive is contained in Table I.

(a) NOTIFIABLE INFECTIOUS DISEASES.

It is regrettable to have to report, as will be seen from Table I., that infectious disease which became more prevalent than usual in this Borough during 1913 has continued into 1914, and that the total incidence and case-mortality from this group of infectious disease was slightly higher during the past year than during the previous year 1913—the figures being 718 and 768 cases, with a case-mortality of 3.3 and 5.5 per cent. respectively. Such minor yearly fluctuations in the incidence and case-mortality of infectious diseases are to be expected and are inseparable from varying local conditions and questions, sanitation and public health administration. But in endeavouring to arrive at any generalisations from Table I. when the long view is taken, it may be reasonably concluded that, although during the past two decades there has been little abatement in the incidence of some members of this group of infectious disease, there has been an appreciable decrease in case-mortality, which, from 1894 to 1903 was 9.1, while from 1904 to 1913 it fell to 7.1, and for the past year 5.5.

That the decreasing case-mortality is more immediately attributable to the decreasing severity of the type of infectious disease of this group in recent years is not open to doubt ; although on the other hand the causes in operation which have favourably modified the type of infectious disease present some interesting questions around which there is much diversity of opinion. There is the bacteriological aspect of the question which involves such considerations as the variability of the virulence of the attacking micro-organisms ; and the resisting powers of the individuals attacked, with the degree of modifications to which these powers are susceptible through partial or acquired immunity, or through better sanitation and better conditions of living. Then there is the much discussed question of the effects of isolation hospitals for infectious disease. But, whatever opinions may be held on the bacteriological aspects of the question, as these do not lend themselves readily to measurable quantities, it must be admitted, when the best or worst for or against fever hospitals has been said, that the general type of infectious disease in this group is on the whole much milder to-day than in the days preceding the advent of the isolation hospital.

TABLE I.—Morbidity and Mortality of Infectious Diseases during each year from 1894 to 1914 inclusive.

DISEASE		YEARS																ANNUAL AVERAGES						
																		10 YEARS	10 YEARS					
		1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1894-1903	1904-1913	1914
Compulsorily Notifiable—																								
SMALL-POX	No. of Sicknesses	14	7	2	...	...	...	2	1	24	114	3	2	4	1	...	...	...	...	...	...	16.4	1	5
	No. of Deaths	1	...	...	...	...	...	...	...	...	5	1	...	...	...	...	...	...	...	...	...	0.6	0.1	1
	Per cent. of Deaths to Sickness	7.1	...	...	...	...	...	...	...	...	4.4	33.3	...	...	...	...	...	...	...	...	...	3.7	10.0	20.0
SCARLET FEVER	No. of Sicknesses	797	846	371	97	84	211	114	195	91	304	413	478	335	245	152	201	308	305	451	565	311.0	345.3	477
	No. of Deaths	29	45	24	7	3	9	2	7	2	11	14	22	13	4	7	10	8	10	9	7	13.9	10.4	5
	Per cent. of Deaths to Sickness	3.6	5.3	6.5	7.2	3.6	4.3	1.8	3.6	2.2	2.2	3.6	3.4	4.6	1.6	4.6	5.0	2.6	3.3	2.0	1.2	4.5	3.0	1.0
DIPHTHERIA	No. of Sicknesses	80	89	40	16	27	29	32	44	36	69	55	54	81	104	82	84	30	40	51	59	46.2	64.0	152
	No. of Deaths	48	27	9	7	4	13	7	16	9	21	18	26	20	22	19	13	9	3	10	8	16.1	14.8	24
	Per cent. of Deaths to Sickness	60.0	30.3	22.5	43.7	14.8	44.8	21.9	36.4	25.0	30.4	32.7	48.1	24.7	21.2	23.1	15.5	30.0	7.5	20.0	13.6	34.8	23.1	14.5
TYPHOID FEVER	No. of Sicknesses	68	42	55	29	77	35	30	51	37	31	22	34	23	16	23	18	17	6	13	16	45.5	18.8	20
	No. of Deaths	9	9	7	6	16	9	3	8	4	7	7	3	5	5	9	3	6	3	4	4	7.8	4.9	6
	Per cent. of Deaths to Sickness	13.2	21.4	12.7	20.7	20.8	25.7	10.0	15.7	10.8	22.6	31.8	8.8	21.7	31.3	39.0	16.7	35.3	50.0	30.8	25.0	17.1	26.1	30.0
TYPHUS FEVER	No. of Sicknesses .....	...	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.7	...	...
	No. of Deaths .....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.1	...	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14.3	...	...
PUERPERAL FEVER.....	No. of Sicknesses	11	11	7	7	17	9	9	13	10	7	11	8	13	10	5	4	5	10	8	7	10.1	8.1	6
	No. of Deaths	6	5	4	4	7	3	3	6	3	3	2	5	5	6	1	1	4	5	4	2	4.4	3.5	2
	Per cent. of Deaths to Sickness	54.5	45.5	57.1	57.1	41.2	33.3	33.3	46.2	30.0	42.8	18.2	62.5	38.5	60.0	20.0	25.0	80.0	50.0	50.0	28.6	43.6	43.2	16.7
ERYSIPELAS	No. of Sicknesses	69	54	72	43	103	84	42	81	61	69	60	81	73	50	55	60	47	62	52	67	67.8	60.7	77
	No. of Deaths	1	5	4	...	2	2	2	5	...	3	1	2	6	...	1	2	...	1	2	1	2.4	1.6	3
	Per cent. of Deaths to Sickness	1.4	9.3	5.6	...	1.9	2.4	4.8	6.2	...	4.4	1.7	2.5	8.2	...	1.8	3.3	...	1.6	3.8	1.5	3.5	2.6	3.9
§ACUTE POLIOMYELITIS...	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.3	1
	No. of Deaths .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.1	1
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	100.0
§CEREBRO-SPINAL FEVER	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.2	...
	No. of Deaths .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.1	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
‡OPHTHALMIA NEONATORUM...	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	No. of Sicknesses	1039	1050	547	192	314	368	229	385	259	594	564	657	529	426	317	337	407	423	576	718	497.7	498.4	768
	No. of Deaths	94	92	48	24	32	36	17	42	18	50	43	58	49	37	37	29	27	22	29	24	45.3	35.5	42
	Per cent. of Deaths to Sickness	9.0	8.8	8.8	12.5	10.2	9.7	7.4	10.9	6.9	8.4	7.6	8.8	9.3	8.7	11.7	7.9	6.6	5.2	5.0	3.3	9.1	7.1	5.5
*Not Compulsorily Notifiable—																								
MEASLES.....	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths	4	35	43	68	13	24	34	5	71	4	42	1	50	24	66	17	4	31	29	9	30.1	27.3	56
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WHOOPING COUGH	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths	10	19	52	18	2	19	34	20	13	42	36	13	19	27	25	6	17	17	26	3	22.9	18.9	42
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHICKEN POX	No. of Sicknesses .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No. of Deaths .....	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Per cent. of Deaths to Sickness .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* As these diseases are not compulsorily notifiable the numbers here recorded are probably incomplete. ‡ Compulsorily Notifiable from September 1st, 1912. † Average 5 years.
‡ Compulsorily Notifiable from April 1st, 1914.

Small-pox.

There were 5 cases of this disease within the Borough during the past year. These followed from an outbreak of Small-pox in the neighbouring urban district of Milnrow. As regards the manner of outbreak and spread of infection, this outbreak presented some questions of considerable interest, and more especially bearing on the convection or air-borne theory of the spread of infection. The subject was dealt with in a special report presented to the Health Authority and the Local Government Board.

Vaccination.

The following Table as to vaccination of infants in Rochdale Registration District, which includes in addition to the Borough of Rochdale the neighbouring districts of Whitworth, Wardle, Littleborough, Milnrow and Norden, has been compiled from figures kindly supplied by R. A. Leach, Esq., Clerk of the Rochdale Union.

Children vaccinated after December 31st, 1913, appear in the following Table as unvaccinated. An examination of these figures shows that the proportion of "not vaccinated by reason of" "statutory declaration" is still increasing, and that during the year 1913, 65·6 per cent. came within this term, which is the highest figure yet recorded. This subject and its significance has been fully discussed in previous reports.

TABLE II.

Vaccination Return.—Rochdale Registration District, 1903-1913.

YEAR	No of Births Registered	Died before Vaccination	No. Surviving	Successfully Vaccinated		Insusceptible to Vaccination		NOT VACCINATED Statutory Declaration of Conscientious Objection		REMAINDER OF SURVIVING CHILDREN					
				Number	Per-centage	Number	Per-centage	Number	Per-centage	Postponed by Medical Certificate		Removed to other Districts		Not otherwise accounted for	
1903	2869	303	2566	2006	78·2	1	...	428	16·7	38	1·5	86	3·3	7	0·3
1904	2738	267	2471	1959	79·3	4	0·2	399	16·1	29	1·2	77	3·1	3	0·1
1905	2634	265	2369	1811	76·4	2	0·1	436	18·4	47	2·0	68	2·9	5	0·2
1906	2787	286	2501	1846	73·8	2	0·1	561	22·4	34	1·4	52	2·1	6	0·2
1907	2778	252	2526	1674	66·3	2	0·1	708	28·0	40	1·6	88	3·5	14	0·6
1908	2957	290	2667	1252	46·9	6	0·2	1280	48·0	39	1·5	73	2·7	17	0·6
1909	2779	203	2576	987	38·3	6	0·2	1489	57·8	19	0·7	57	2·2	18	0·7
1910	2711	195	2516	905	36·0	...	...	1500	59·6	26	1·0	74	3·0	11	0·4
1911	2669	238	2431	841	34·6	4	0·2	1478	60·8	25	1·0	60	2·5	23	0·9
1912	2581	182	2399	777	32·4	3	0·1	1510	62·9	20	0·8	69	2·9	20	0·8
Av. for 10 years 1903-12	2750	248	2502	1406	56·2	3	0·1	979	39·1	32	1·3	70	2·8	12·4	0·5
1913	2601	195	2406	722	30·0	3	0·1	1578	65·6	29	1·2	56	2·3	18	0·8

Scarlet Fever.

The epidemicity of Scarlet Fever is exhibited in its tendency to recur in epidemic fashion in every community at intervals varying from 7 to 10 years. It is a subject of vital interest, and has been taken up in recent years by epidemiologists and mathematicians with great zeal; and an endeavour is being made to reduce the many factors concerned to approximate measurable dimensions, but the success of such means in the present state of our knowledge is not as yet evident.

In the annual reports for 1909 and 1910 an epidemic was predicted as probably imminent; and unfortunately such prediction proved true. For during 1913, 565 cases were notified, and during the past year 477 cases as against a yearly average of 345 cases during the preceding 10 years; but the case-mortality should be noted, inasmuch as during 1913 and 1914 the numbers

TABLE III.—Cases of Infectious Disease notified or discovered during year 1914, and distributed according to Wards of the Borough, also cases removed to Hospital from each Ward.

DISEASE	Total Cases	AGE OF PATIENTS							WARDS OF BOROUGH.										
		Under 1 year	1—5 years	5—15 years	15—25 years	25—45 years	45—65 years	65 years and over	Castleton East	Castleton South	Castleton North	Castleton West	Castleton Moor	Spotland East	Spotland West	Wardleworth East	Wardleworth West	Wardleworth South	Wardle
A.—Compulsorily Notifiable—																			
Small-pox { Cases Deaths Removed	5 1 5	...	1 1 1
Scarlet Fever { Cases Deaths Removed	477 5 300	1 71 37	113 2 302	42 1 30	17 2 12	2 1 9	1 1 1	...	45	24	17	39	1	...	...	71	1	...
Diphtheria { Cases Deaths Removed	152 24 82	1 14 18	1 37 92	1 13 8	1 9 49	1 6 1	...	...	...	...	...	...	...	...	...	...	...	...
* Typhoid Fever { Cases Deaths Removed	20 6 16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever { Cases Deaths Removed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas { Cases Deaths Removed	77 3 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever { Cases Deaths Removed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis { Cases Deaths Removed	1 1 30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
‡ Ophthalmia Neonatorum { Cases Deaths Removed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B.—Not Compulsorily Notifiable—																			
Measles { Cases Deaths Removed	983 56 389	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough { Cases Deaths Removed	42 255 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox { Cases Deaths Removed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS { Cases Deaths Removed	2395 140 403	32 36 2	154 79 90	405 12 240	75 3 45	54 6 23	36 2 3	12 2 ..	206 12 29	134 7 50	39 2 23	93 2 56	87 3 35	78 2 29	44 4 23	61 5 37	91 7 44	93 9 43	
Tuberculous Disease (Comp. Notif.)—																			
Pulmonary Tuberculosis { Cases Deaths Removed	188 98 31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Forms Tuberculosis { Cases Deaths Removed	38 279 135	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS { Cases Deaths Removed	11 112 132	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE IV.

Progress of Infectious Disease during the year 1914, being Cases notified or discovered in each Month.

DISEASE	1914												
	January	February	March	April	May	June	July	August	September	October	November	December	Total for the Year.
A.—Comp. Notifiable—													
Small Pox { Cases	...	...	...	...	...	4	1	...	...	...	...	...	5
{ Deaths	...	...	...	...	...	...	1	...	...	...	...	...	1
Scarlet Fever ... { Cases	75	56	65	42	26	31	50	18	19	33	41	21	477
{ Deaths	1	1	1	...	...	...	1	1	...	...	...	...	5
Diphtheria { Cases	14	11	6	2	8	7	12	10	10	19	23	30	152
{ Deaths	1	3	2	1	...	1	...	1	3	1	4	7	24
†Typhoid Fever { Cases	...	2	2	3	4	4	1	...	...	1	...	3	20
{ Deaths	...	...	...	1	2	2	...	...	...	1	...	...	6
Typhus Fever ... { Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas..... { Cases	11	4	9	10	2	11	5	5	5	6	7	2	77
{ Deaths	1	...	...	...	...	1	...	...	1	...	...	...	3
Puerperal Fever { Cases	...	2	...	1	1	...	...	...	1	...	...	1	6
{ Deaths	...	...	...	...	...	...	...	...	...	1	...	1	2
Acute Poliomylitis.. { Cases	...	...	...	...	1	...	...	...	...	...	...	...	1
{ Deaths	...	...	...	...	1	...	...	...	...	...	...	...	1
§Ophthalmia { Cases	...	...	...	4	4	4	7	6	2	2	1	...	30
Neonatorum... { Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
B.—Not Comp. Notifiable—													
Measles*..... { Cases	131	178	144	146	305	6	14	9	29	7	12	2	983
{ Deaths	...	2	9	7	16	10	8	2	1	...	1	...	56
Whooping Cough { Cases	86	108	80	54	35	2	6	4	2	2	5	5	389
{ Deaths	2	8	10	7	6	4	2	1	...	...	1	1	42
Chicken Pox ... { Cases	4	17	23	16	30	7	5	3	2	40	63	45	255
{ Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Total { Cases	321	378	329	278	416	76	101	55	70	110	152	109	2395
{ Deaths	5	14	22	16	25	18	12	5	5	3	6	9	140
Tuberculous Diseases (Comp. Notifiable)—													
‡Pulmonary Tuberculosis { Cases	19	17	17	25	21	17	18	5	15	14	7	13	188
{ Deaths	9	11	9	14	8	9	6	6	4	8	5	9	98
*Other Forms Tuberculosis { Cases	8	9	15	6	13	12	6	3	1	4	2	12	91
{ Deaths	6	1	1	3	6	7	4	2	...	4	...	4	38
Total { Cases	27	26	32	31	34	29	24	8	16	18	9	25	279
{ Deaths	15	12	10	17	14	16	10	8	4	12	5	13	136
Influenza .....Deaths	...	...	3	2	2	...	1	...	2	...	...	1	11
Pneumonia .....Deaths	11	10	22	17	6	7	5	5	4	6	4	15	112
Bronchitis .....Deaths	21	13	16	21	7	4	4	6	6	12	12	10	132

† Including Para-Typhoid Fever.

‡ Compulsorily Notifiable, January, 1912.

§ Compulsorily Notifiable from 1st April, 1914.

* Compulsorily notifiable, February, 1913.

of deaths per 100 cases was 1.2 and 1.0 respectively, whereas during the two preceding epidemic years 1895 and 1905 with 846 and 478 cases, the case-mortality was 5.3 and 4.6 respectively for every 100 cases.

300 or 63 per cent. of the cases notified were removed to Marland Hospital for isolation and treatment, while 177 or 37 per cent. were treated at their own homes. During the year there were 5 deaths from this disease. The ages and ward incidence are shown in Table III. 294 or 61 per cent. of the cases notified were children attending school, and the schools chiefly affected were Greenbank, Heybrook, Baillie-street and Brinrod.

The outstanding features of this outbreak of Scarlet Fever were discussed in the Annual Report for 1913. These equally apply for 1914, since over 200 of the cases during the past year were reported within the first three months of the year. The prevalence of Scarlet Fever during 1914 may be considered as largely due to the continuation of the epidemic of 1913 into the earlier part of 1914. No milk supply was specially involved, and the protracted nature of the epidemic was largely due to the general mildness of the disease. Hence in so very many cases parents did not treat the condition seriously and medical advice was not obtained until probably some of the more serious post scarlatinal complications supervened; while all such, as well as other, and missed cases, were the active means of maintaining the spread of infection to others in factories, workshops and schools. Many cases, of generally a mild type, although seriously infectious to other children, were detected by the Teachers and Nurses in school; while several cases in various situations and conditions were discovered by members of the Health Staff during the performance of their duties.

Diphtheria.

As the protracted incidence of Scarlet Fever during 1913 and the first half of 1914 began to decrease, Diphtheria began to increase and become very prevalent; and of the total of 152 cases reported during the year 72 occurred during the last three months of the year. Such inter-relationship of Scarlet Fever and Diphtheria not infrequently presents itself, both as regards their epidemic history and certainly as regards the individual, both diseases do frequently run their course concurrently, or the one disease may follow the other, as was frequently observed during the past two years. The old and comforting theory that during an attack of one infectious disease the patient was immune or protected against other infectious diseases has only a very limited truth, and certainly does not hold as regards Scarlet Fever and Diphtheria, for, as the throat suffers in both these diseases, and is probably the chief avenue of infection in both, it is very reasonable to suppose that a patient suffering or convalescing from the one is more susceptible to be attacked by the other. There are some who will at once say that this is purely a hospital phenomenon, but the careful observer will at once recognise that it is of much wider significance, and especially as regards clinical treatment and the precautions to be taken to prevent the spread of infection to others.

By reference to Tables I., III. and IV., the statistics for the past two decades, with the progress of infectious disease, ages, ward incidence, etc., during the past year, will be seen provided in some detail.

86 of the cases occurred among school children, and the schools chiefly affected were Meanwood, Castlemere and St. Patrick's.

24 deaths were registered during the year as due to Diphtheria, as against 8 in 1913. 82 or 54 per cent. of the cases were isolated and treated at Marland Hospital.

The type of the disease was generally severe and included many cases of the septic, hæmorrhagic and laryngeal type. In many cases, however, it appeared from the history of the case that the illness commenced in so mild a form as not to suggest to parents the necessity of securing medical advice, until some days afterwards, when usually the illness had assumed the severe toxic type of the disease; and when, unfortunately, as happens in all such cases, the benefits of the anti-toxin treatment was lost to the patient.

Diphtheria Anti-Toxin.

For the convenience of medical men a sufficient supply of anti-toxin is kept at the Borough Police Central Office, and at the Marland Infectious Diseases Hospital, where it may be had at any hour, night or day, and also at the Health Office, where it may be had during the day. During the year 624,000 units were given out free of charge for cases within the Borough.

Still the fact remains, when infectious disease is not treated seriously, that many of those attacked by this disease receive little or no benefit from the anti-toxin treatment, although it is now well established that, if anti-toxin is administered sufficiently early the case will usually run a mild course, and there would be very few deaths from Diphtheria. On the other hand, when anti-toxin is not administered early and the type of the disease is or becomes severe, then the patient runs great risk of suffering from some of the many severe complications of Diphtheria, from which in many cases recovery is slow and in some may only be partially complete.

Typhoid Fever.

Of this disease 20 cases were notified during the past year. That is 4 more cases than in 1913, and two above the average for the ten years 1904-13. 10 of these cases were reported from two wards—Castleton West and Castleton Moor, while the remainder of the cases were about equally distributed throughout the other wards. Careful investigation, however, failed to discover any apparent connection as regards possibilities of infection between these cases. They all occurred in different homes and at such intervals of space and time as to preclude the likelihood of contact infection. No milk supply nor water supply was involved. Some five or six cases admitted eating shell-fish at various dates not far antecedent to date of illness, but if any of these cases had suffered through such fish, enquiries failed to find that others had suffered who got similar supplies about the same time from the same sources.

Typhus Fever.

Rochdale has been free from this disease since the year 1898, when 6 cases were reported. In England and Wales only 6 cases were notified as against 18 in 1913, and 31 cases in 1912.

Puerperal Fever.

6 cases reported as compared with 7 in the previous year 1913. Each case was investigated, but there was no evidence of any connection one with the other. See Section III. of this report, part relating to the work under the Midwives Act.

Erysipelas.

The incidence of this disease was greater during the past year (with 77 cases) than any year since 1907 (73 cases). There were 3 deaths.

Acute Poliomyelitis.

Only 1 case of Poliomyelitis, a child of 18 months old, was reported, and this unfortunately proved fatal. In the previous year 1913, 2 cases were notified.

Cerebro-Spinal Fever.

There were no cases of this disease during the year, but 2 cases were reported in 1913.

Comparative Incidence Rate of Notifiable Infectious Diseases.

The following Table V. has been compiled from the report of the Local Government Board as a comparison of the incidence of notifiable infectious diseases in twelve large neighbouring manufacturing towns with Rochdale.

TABLE V.

Incidence of Notifiable Infectious Diseases in 12 neighbouring towns during the year ending 2nd January, 1915.

(Rate per 1,000 of population. Estimate middle of 1914.)

Town	Estimated Population to the middle of 1914.	Small-pox		Scarlet Fever		Diphtheria		Typhoid Fever		Puerperal Fever		Erysipelas	
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Bury	59,213	...	...	251	4.22	58	0.98	8	0.13	4	0.07	35	0.60
Blackburn	134,387	...	...	703	5.23	62	0.43	30	0.22	10	0.07	97	0.72
Bolton	185,247	...	...	291	1.57	191	1.03	53	0.29	9	0.05	92	0.49
Burnley	110,040	...	...	309	2.71	125	1.13	21	0.19	9	0.08	115	1.04
Halifax	100,373	...	...	498	4.93	100	0.99	31	0.30	5	0.05	69	0.68
Huddersfield	112,265	...	...	215	1.90	86	0.76	21	0.19	4	0.04	83	0.73
Oldham	151,044	4	0.03	1267	8.39	163	1.07	20	0.13	9	0.06	165	1.09
Preston	118,514	...	...	1142	9.63	215	1.81	45	0.35	7	0.06	110	0.92
Stockport	126,040	...	...	452	3.59	68	0.53	23	0.18	3	0.02	67	0.53
St. Helens	100,778	...	...	340	3.37	120	1.19	19	0.18	18	0.18	107	1.06
Wigan	91,491	...	...	224	2.45	43	0.47	69	0.75	5	0.05	83	0.91
Warrington	74,923	...	...	1132	15.11	126	1.68	27	0.36	10	0.13	62	0.83
Average—12 Towns	...	...	0.002	569	5.26	113	1.08	31	0.27	8	0.72	90	0.80
*ROCHDALE	94,320	5	0.05	476	5.05	148	1.58	17	0.18	6	0.06	76	0.81

* These figures for Rochdale relate to the year ending, 2nd January, 1915.

Administrative Procedure.

In the case of the diseases dealt with under the heading "Notifiable Infectious Diseases" the following procedure is usually adopted:—

- (1.) VISITING AND INSPECTION.—On receipt of a notification from the medical man, the house where the disease exists is visited by the Sanitary Inspector. Enquiries are made as to means of isolation, water, milk and other food supplies bearing on the disease, school attendance, &c., and a general inspection is made of the house and sanitary arrangements. Printed and verbal instructions are given regarding isolation and disinfection.
- (2.) DISINFECTION.—In all cases of infectious disease, after removal to Hospital or the termination of the case, the premises are fumigated with either Formalin or Sulphur gas, chiefly the former. The clothing and bedding which has been in contact with the patient is removed and disinfected by means of a Washington Lyons Steam Disinfectant. Disinfectants are supplied free to each house. In the case of Typhoid Fever at a house having a pail closet as sanitary convenience, a special pail, with cover, is supplied for the purpose of receiving all excrementitious matter from the patient. The pail is removed to the Destructor Works three times per week, the contents destroyed, and the pail thoroughly disinfected.
- (3.) As a further preventative measure against the spread of infectious disease in the elementary and other schools, a complete system of daily notification between the Public Health Department and the Head Teacher, as to exclusion and re-admittance of scholars, is in operation.

(b) NON-NOTIFIABLE INFECTIOUS DISEASES.

Included under this heading are the three infectious diseases Measles, Whooping Cough and Chicken-pox, and during the year 1,627 cases of these diseases were reported from the different elementary schools, as compared with 579 cases during the previous year 1913. The total deaths were 98, as against 12 last year. Tables III. and IV. give full particulars of age, ward and monthly incidence. Disinfection of the house is carried out by the Health Department in cases where application is made by the medical man or householder.

Measles was very prevalent during the first five months of the past year, and especially during the month of May, when 305, or nearly one-third, of the total cases were reported. The cases for the whole year numbered 983, as against 324 during 1913. According to Table III. Castleton East and South Wards were chiefly affected and accounted for no less than 340 of the total cases. 56 deaths were registered as due to Measles, a death-rate of 0·59 per 1,000 of the estimated population. The corresponding rate for the 97 Great Towns of England and Wales was 0·35 per 1,000.

Whooping Cough was also very prevalent during the year, and the bulk of the cases were reported, as in the outbreak of Measles, during the first five months of the year, February claiming the maximum number. The total for the whole year is 389, as compared with 90 in 1913. No particular ward was affected; the cases had an equal distribution. There were 42 deaths registered, being a death-rate of 0·45 per 1,000, as compared with 0·25 per 1,000 for the 97 Great Towns of England and Wales.

Chicken-Pox.

255 cases were reported, as against 165 last year. More than one-half of these cases were notified during the last three months of the year. There were no deaths.

Diarrhœa and Enteritis or Summer Diarrhœa.

Since and including year 1911, deaths registered as due to any of the following diseases are classified under this heading in accordance with the International List of Causes of Death as approved by the Local Government Board and Registrar-General:—(a) Infective Enteritis; (b) Diarrhœa; (c) Enteritis; (d) Gastro-enteritis; (e) Dyspepsia (under 2 years); (f) Colic; (g) Ulcer of Intestines; and (h) Duodenal Ulcer. These terms are substantially identical, but only such deaths as are of children under two years of age are grouped together and classed as one of the seven principal zymotic diseases.

The deaths thus recorded are set out below in comparison with the year 1913.

	NO. OF DEATHS.					
	Under 2 years		Over 2 years of age		All Ages	
	1914	1913	1914	1913	1914	1913
(a and b) Diarrhœa and Infective Enteritis ...	14	28	7	7	21	35
(c to h) Enteritis, etc. ...	12	18	9	10	21	28
TOTAL ...	26	46	16	17	42	63

The 42 deaths from these causes recorded in this Table are equal to a death-rate of 0·45 per 1,000 as compared with 0·49 per 1,000 during 1913.

Calculated per 1,000 births registered the death-rate from Diarrhœa and Enteritis (under two years of age) was 13·84, as compared with 26·09, the rate for the 96 Great Towns of England and Wales.

Mortality from Infectious Diseases.

The following Table records the death-rate from the seven zymotic diseases during 1914 as 1·70 per 1,000, as against 0·82 per 1,000 during 1913, and an average of 1·36 per 1,000 during the ten years 1904-1913.

The high rate during the past year is chiefly due to Measles and Whooping Cough, which together caused 98 deaths, equal to 1·05 per 1,000 of the population.

TABLE VI.

SEVEN PRINCIPAL ZYMOTIC DISEASES.

Death-rates per 1,000 Estimated Population during Ten Years 1904-1913 and 1914.

DISEASE.	YEARS.										Average Annual Rate 10 years 1904-1913	Rate Year 1914
	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913		
SMALL-POX	+0.01	...	...	...	...	...	...	...	...	...	...	0.01
MEASLES	0.49	†0.01	0.57	0.27	†0.74	0.19	0.04	0.34	0.31	0.10	0.31	0.59
SCARLET FEVER	0.16	†0.25	0.15	†0.05	0.08	0.11	0.09	0.11	0.10	0.08	0.12	0.05
WHOOPING COUGH ...	†0.42	0.15	0.22	0.31	0.28	†0.07	0.19	0.19	0.28	0.03	0.21	0.45
*FEVER { Typhoid Typhus Continued }	†0.14	0.06	0.09	0.06	0.10	†0.03	0.07	†0.03	0.04	†0.03	0.07	0.06
DIARRHŒA	0.63	0.52	0.58	0.11	†0.98	†0.09	0.28	§0.96	§0.21	§0.49	0.49	§0.28
DIPHTHERIA	0.21	†0.30	0.23	0.25	0.21	0.14	0.10	†0.03	0.11	0.10	0.17	0.25
TOTAL ZYMOTICS	2.06	1.29	1.84	1.04	†2.39	†0.63	0.76	1.66	1.06	0.82	1.36	1.70

* Chiefly Typhoid, and including Para-Typhoid Fever. No deaths from Typhus Fever since 1898.
† Lowest. ‡ Highest. § Diarrhœa and Enteritis (under 2 years).

TABLE VII.

ROCHDALE INFECTIOUS DISEASES HOSPITAL.

Return of Patients for year ending 31st December, 1914. Marland Hospital.

DISEASE	In Hospital on 31st December 1914	Admitted during the Year	Discharged	Died	Remaining in Hospital at end of Year	Average stay in Hospital of Patients Disch'rg'd — Days	Ages of Patients Admitted		
							Under 5 Years	5—15 Years	Above 15 Years
SMALL-POX .....	...	10	9	1	...	...	1	...	9
MEASLES.....	...	...	...	...	...	...	...	...	...
SCARLET FEVER	86	508	550	7	37	...	106	317	85
DIPHTHERIA	3	83	53	10	23	...	19	50	14
TYPHOID FEVER	1	57	42	12	4	...	3	17	37
TYPHUS FEVER .....	...	...	...	...	...	...	...	...	...
ERYSIPELAS .....	...	...	...	...	...	...	...	...	...
WHOOPING COUGH .....	...	...	...	...	...	...	...	...	...
PUERPERAL FEVER.....	...	...	...	...	...	...	...	...	...
Epid. Cerebro-Spinal Meningitis .....	...	...	...	...	...	...	...	...	...
Total Zymotic Cases	90	658	654	30	64	...	129	384	145
In Quarantine .....	...	6	6	...	...	17	2	1	3
TOTAL	90	664	660	30	64	...	131	385	148

Particulars of Cases admitted from outside Borough.

District or Institution	Scarlet Fever		Diphtheria		Typhoid Fever		Small-pox		Totals	
	Cases	Death	Cases	Death	Cases	Death	Cases	Death	Cases	Death
MIDDLETON	132	4	...	...	41	8	...	...	173	12
HEYWOOD	60	1	...	...	...	...	...	...	60	1
MILNROW	1	...	...	...	...	...	6	...	7	...
DEARNLEY WORKHOUSE	14	...	...	...	...	...	...	...	14	...
LITTLEBOROUGH ...	...	...	1	...	...	...	...	...	1	...
TOTAL	207	5	1	...	41	8	6	...	255	13

Average daily number of Patients in Hospital	...	...	...	74 (33 males ; 41 female.)
Number of Cases admitted from outside Borough	...	...	...	255
Number of Deaths among cases	..	..	...	13
Maximum Daily Number of Patients in Hospital	...	...	...	113 on January 27th
Minimum Daily Number of Patients in Hospital	...	...	...	33 on September 29th

TABLE VIIa.

Number of cases treated at Marland Hospital during 11 years 1904-1914.

Disease	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	Average 10 years 1904-13	1914
SMALL-POX	6	16	17	1	1	1	...	6	...	...	5	10
SCARLET FEVER	361	309	255	154	124	146	250	227	375	510	271	508
DIPHTHERIA	14	5	24	54	43	43	21	23	32	37	30	83
TYPHOID FEVER	7	17	14	9	20	16	13	4	13	19	13	57
OTHER DISEASES	1	1	2	3	2	6	...	4	3	2	2	6
TOTAL CASES	389	348	312	221	190	212	284	264	423	568	321	664
NO. OF DEATHS	18	16	21	22	22	19	15	8	16	12	17	30
Case Mortality per cent.	4.6	4.6	6.7	10.0	11.6	9.0	5.3	3.0	3.8	2.1	6.1	4.5

Hospital Expenditure.

The following abstract has been prepared from the Borough Treasurer's statement of accounts. The increase in the expenditure during the past year is due to the increased number of cases treated.

Items	Financial Year ending					
	March, 1914			March, 1915		
	£	s.	d.	£	s.	d.
Wages of Staff	632	11	1	1006	0	1
Rates, Taxes, Insurance, &c.	141	5	1	153	19	1
Gas, Water, Coal and Coke, etc.	335	3	0	349	4	0
Provisions and Drugs, &c.	1118	4	0	1348	17	7
Horse Hire for Ambulance	108	2	4	98	8	6
General Repairs and Alterations	482	7	0	60	8	1
Establishment Requisites, &c.	369	11	10	359	7	4
Interest on Mortgage Loans	93	15	8	91	6	9
Sinking Fund Proportion	8	3	7	8	3	7
Bury & District Joint Hospital Board	...	...	...	134	18	9
Diphtheria Anti-Toxin...	...	...	...	132	2	7
Yearly Total ...Gross	£3289	3	7	£3742	16	4

Table showing Average cost per Person (incl. staff) per day for Provisions and Drugs.

Financial Year ending	Expenditure on Provisions and Drugs			Average Daily Expenditure on Provisions and Drugs			Average Daily Number of Patients and Staff	Average Cost per Person per day for Provisions and Drugs
	£	s.	d.	£	s.	d.		
MARCH 31ST, 1912 ... (Patients admitted 224)	656	3	10	1	15	10	44	9 $\frac{3}{4}$ d.
MARCH 31ST, 1913 ... (Patients admitted 473)	855	2	6	2	6	10	65	8 $\frac{5}{8}$ d.
MARCH 31ST, 1914 ... (Patients admitted 654)	1118	4	0	3	1	3	94	7 $\frac{3}{8}$ d.
March 31st, 1915 ... (Patients admitted 660)	1348	17	7	3	13	11	97	9 $\frac{1}{4}$ d.

In reviewing the history and progress of infectious disease in this Borough, the last two years cannot be considered satisfactory, although on the average the incidence of infectious disease is comparatively low when compared with other manufacturing towns.

Before the era of reliable statistics and public health administration we know, from general history and such statistics as are available, that virulent epidemics of infectious disease swept across the land in intermittent fashion with unmitigated fury and causing a very high case-mortality. But that, after nearly half-a-century of public health administration and free education, epidemics of infectious disease are still so prevalent and still cause such disastrous effects on infant-life and young children, is a question which surely demands serious consideration. True it is that some of the more deadly and loathesome infectious diseases of history have become now practically extinct in this country, although not infrequently vivid pictures of what this country suffered are still provided in countries that have not as yet so readily embraced the gospel of preventive medicine and sanitation; and further, it will be readily admitted that as regards the notifiable infectious diseases such as Scarlet Fever and Diphtheria, for which health authorities have provided adequate means of isolation, treatment and disinfection, while at the same time enforcing the due observance of the Laws which have for their purpose the control of these diseases, there is a hopeful tendency at least towards some mitigation of the type of these diseases and certainly towards a lower case-mortality. But when on the other hand we come to seriously consider the history and progress of such non-notifiable common infectious diseases as Measles and Whooping Cough, the careful and anxious enquirer cannot evade such a common sense and pertinent question, what is the measurable effect to-day of all our educational and preventive measures on the incidence and case-mortality of Measles and Whooping Cough? For it is still probably true that these two diseases are the cause of more deaths and general ill-health amongst infants and young children than all the other infectious diseases put together. The epidemic frequency of these two diseases is only usually measured by an interval of two or three years, and during the past such epidemic year in Rochdale these two diseases claimed no fewer than 98 deaths. Of these deaths 36 occurred among infants under 1 year of age, while 59 occurred among children included in the 1—5 years age period. Scarlet Fever and Diphtheria differ in these respects from Measles and Whooping Cough. Their epidemic frequency is measured by a longer interval of time and infants are seldom attacked. Consequently of the 29 deaths due to these two diseases during the past year, they all fall in the 2—15 years age period with the exception of 4.

In previous reports the different aspects of this question have been frequently discussed, and it has been readily admitted that, due to various causes, such infectious diseases as Measles and Whooping Cough are not so amenable to preventive measures as the other infectious diseases. For in dealing with these diseases, as also in the case of Scarlet Fever, we are under this great disadvantage that Science has not as yet been able to reveal the causal micro-organisms. But as newer methods of investigation have recently been devised which give greater hope of success, we may look for discoveries which may have no less important bearing on the control of these diseases than the discovery of the bacillus of Diphtheria, and its anti-toxin, which robbed that disease of its former terrors. For the science of healing and preventive medicine hath her victories no less renowned than those of war.

But still the question has to be answered—are the preventive measures in operation the measure of our present knowledge as regards the possibilities of prevention or even the mitigation of the ravages of these diseases? In the annual health reports issued by all health authorities one invariably finds the perennial lamentations over the wastage of infant life caused by these two diseases; and the causes almost invariably assigned are those of ignorance on the part of the parents, although it might be better stated as want of knowledge on the part of the parents as regards the serious nature of these diseases and the lack of proper nursing. But, if these are, as they undoubtedly are amongst others, real causes, surely they can be removed to some considerable degree; and this again just brings us back to the primary question, what should be the underlying principles of all true education—the development of a sound mind in a sound body.

This aspect of the question has always been before us, and in previous health reports, and especially in the school medical reports of previous years, graduated practical courses in all such matters of domestic and personal hygiene as pertain to the development and maintenance of general health and infant care, have been outlined and advised for all senior girls before leaving school. Arguments for and against such courses are provided in the prefaces to the school reports, and the arguments set out in the preface to the school report of last year and incorporated in this volume are very appropriate to this discussion. In Manchester and other places such courses have now been adopted for senior school girls, with supplementary courses for those who have left school as well as for parents. Further, in pursuance of this wider view of all true education, we have prepared a series of pamphlets containing in more detail than usual what parents should know as regards infectious disease, and specimen copies have already been widely distributed.

We have further linked up the work of the medical inspection of schools in a combined scheme with the Health Office, and thereby many cases in the early infectious stage are discovered, while many of the "missed type" are detected in schools; and it may be added that as regards non-notifiable infectious diseases the great majority of the cases became known to the Health Office through this joint scheme of working.

But it may be added that in the control of infectious disease, while events prove that little can be achieved without thorough organisation on the one hand, yet no organisation, however perfect, can be of much avail unless all concerned are prepared to carry out their respective duties in a conscientious manner; and in so far as there may be any failure to do so, the ultimate responsibility must always rest with the local Health Authority.

The Compulsory Notification of Measles and Whooping Cough.

This has been adopted and tried by several Health Authorities, and in some cases subsequently given up. Now a modified form of notification is proposed, whereby notification to the Medical Officer of Health would be required of the first case of Measles or Whooping Cough attended by a medical man, and of each case in the household by the parents of the patients. The Local Government Board, by circular letter of date 31st March, 1915, are now willing to comply with an application from any Health Authority for an Order making the above system applicable to cases of these diseases occurring in their district, and provided that when a notification is received the Medical Officer of Health, or an officer of the Health Authority acting under his instructions, shall make such enquiries and take such steps as are necessary or desirable for investigating the nature of the case and the source of infection for preventing the spread of infection and for removing conditions favourable to infection. The Board also propose to include in the Order a clause empowering Health Authorities to provide or contract for the provision of medical and nursing assistance for the poorer classes of the district who may be suffering from any of these diseases. Each Health Authority is requested to consider the above and inform the Board as to their decision.

Tuberculosis.

It is now over 30 years since the tubercle bacillus was discovered, and if, as our knowledge of this disease and the means of prevention increased from the date of that great discovery, our preventive measures had been simultaneously organised and carried out during those 30 years with resolute government, the extirpation of tuberculosis would have been to-day proportionately nearer of accomplishment. In this respect I venture to think that the central as well as local Health Authorities have missed a great opportunity. Now, however, at time of writing, it just happens to be three years since the Tuberculosis sections of the Insurance Act came into operation, and it marks the date of the completion of an Agreement between the Insurance Committee and the Corporation of this Borough as regards the provision of sanatorium benefit for insured persons. This long delay has carried us to a period of national crisis in which there may be now further delay, and this is to be sincerely regretted, unless it can be shown that the original scheme has in any way been improved or modified, either from the point of view of securing greater benefits for those whom it is intended to benefit, or in securing greater economies in carrying out the scheme. Further, to the poor consumptive hope has been long deferred.

The subject of tuberculosis has been discussed at considerable length in previous and special reports, and I will only here add that until a complete scheme is in operation, with thorough organisation and discipline secured by resolute and just administration, little advance will be made towards the amelioration of the present lot of the consumptive and towards the far greater question of the gradual extirpation of tuberculosis.

MORTALITY FROM TUBERCULOSIS.

Pulmonary Tuberculosis.

98 deaths (51 males and 47 females) have been registered during 1914, equal to an annual death-rate of 1.04 per 1,000 of the estimated population. This compares with 103 deaths or 1.10 per 1,000 during 1913, and an average of 1.12 per 1,000 during the preceding five years 1908-1912. Tables III. and IV. show the distribution of the deaths in the various wards, months, and age periods; and in Table I. Section I. the mortality from this disease is shown for the different wards. 31 of the 98 deaths occurred in public institutions outside the Borough—24 in Dearnley Workhouse and 7 in other institutions.

Other Forms of Tuberculosis.

The number of deaths under this heading was 38 (21 males, 17 females), a death-rate of 0.40 per 1,000, as against 45 deaths, or 0.48 per 1,000 during 1913.

The following Table shows the proportion of deaths from tubercular diseases to the deaths from all-causes; and also annual death-rates for each of the past five years.

Year	Number of Deaths				Proportion of Deaths to Deaths from all causes		Death-Rate per 1,000 of Est. Population	
	Phthisis	Other Tubercul'r Diseases	All Tubercul'r Diseases	All Causes	Phthisis	All Tubercul'r Diseases	Phthisis	Other Tubercul'r Diseases
1909	97	28	125	1442	1 in 15	1 in 12	1.08	0.31
1910	95	49	144	1361	1 in 14	1 in 9	1.05	0.54
1911	91	45	136	1404	1 in 15	1 in 10	0.99	0.49
1912	102	39	141	1384	1 in 14	1 in 10	1.10	0.42
1913	103	45	148	1434	1 in 14	1 in 10	1.10	0.48
Average 5 years...	97.6	41.2	138.8	1405	1 in 14	1 in 10	1.06	0.45
1914	98	38	136	1537	1 in 16	1 in 11	1.04	0.40

The mortality from tuberculosis during the past year, in the neighbouring manufacturing towns, is shown in Table V. of Section I.

Notifications.

The following summary gives the number of notifications of tuberculosis received under the Public Health (Tuberculosis) Regulations, 1912 :—

	Total Primary Notifications	FORM A.		FORM B.		FORM C.	
		Primary Notificat'n	Secondary or Duplicate Notificat'n	Primary Notificat'n	Secondary or Duplicate Notificat'n	Poor Law Institut'ns	Sanatorium
(a) PULMONARY							
Males ...	106	104	20	2	...	17	39
Females ...	82	80	13	2	...	3	20
(b) NON-PULMONARY							
Males ...	46	46	7	...	1	...	...
Females ...	45	45	1	...	...	...	...
TOTALS	279	275	41	4	1	20	59

Form A relates to Notifications by Medical Practitioner.

Form B relates to Notifications by School Medical Inspector.

Form C. relates to Notifications by Medical Officer of a Poor Law Institution or a Sanatorium of cases of Tuberculosis admitted.

(a) Pulmonary Tuberculosis or Phthisis.

According to the above summary 188 primary notifications of cases of pulmonary tuberculosis under Forms A and B were received during 1914, as against 195 in the previous year and 207 cases during the year 1912, when this disease was first compulsorily notifiable.

(b) Non-Pulmonary Tuberculosis.

91 cases of the non-pulmonary type were reported during 1914, as compared with 164 cases during the year 1913. This difference in the numbers notified during these two successive years is undoubtedly due to the fact that, as the Regulations which made this type of the disease notifiable first came into operation on the 1st February, 1913, the cases notified during 1913 were cumulative, whereas the cases notified during 1914 would represent the number of cases discovered during the year.

In the following Table the non-pulmonary notifications received during the year 1914 are classified according to age and localization of disease.

Localization of Disease	Total	Ages—Years						
		Under 1 year	1-5	5-15	15-25	25-45	45-65	65 and over
Glands	35	1	5	12	9	7	1	...
Abdominal	19	4	9	4	1	...	1	...
Bone	14	...	...	3	5	6	...	...
Brain and Meninges ...	12	2	3	6	...	1	...	...
Skin	5	1	...	...	...	3	1	...
Other Forms	6	...	...	...	...	5	1	...
TOTALS ...	91	8	17	25	15	22	4	...

Occupations.

The occupations of the persons during the past year notified as suffering from Pulmonary Tuberculosis are as follows :—

2 Domestic Servants, 1 Nursing Sister, 1 Surveyor, 2 Teachers, 2 Travellers, 5 Clerks, 5 Carters, 2 Tram Conductors, 5 Fitters, 5 Ironworkers, 1 Grinder, 1 Tinsmith, 3 Painters, 3 Stonemasons, 2 Joiners, 55 Cotton and Woollen Operatives, 25 Labourers, 23 Housework, 6 Shop Assistants, 3 Asbestos Workers, 2 Limewashers, 2 Tailors, 2 Hawkers, 1 Dressmaker, 1 Milliner, 1 Bootmaker, 1 Butcher, 1 Soldier, 1 Carpet Weaver, 1 Stoker, 1 Brush Maker, 1 Colliery Worker, 18 Children (School and others), 3 No Occupation.

The notifications of Tuberculosis during the past five years are shown in the following summary :—

	1914		1913		1912	1911	1910
	Pulm.	Non-Pulm.	Pulm.	Non-Pulm.	Pulm.	Pulm.	Pulm.
I.—Compulsory Notification	188	91	195	164	207	74	59
II.—Voluntary Notification	...	...	...	...	...	35	20
TOTAL	188	91	195	*164	†207	109	79

† First complete year of compulsory notification.

* Compulsory notification from 1st February, 1913.

Relation of period of notification to date of death.

A comparison of the local weekly death returns, and the notifications of cases of Tuberculosis of the Lungs or Phthisis received at the Health Office, provides the following summary for the year 1914.

Period between notification and date of death.	No. of Cases.
(a) No notification of disease received before death ...	18
(b) Notifications received under 1 week before death ...	8
" " " 2 weeks " 	3
" " " 3 " " 	4
" " " 4 " " 	1
" " 1—3 months before death	18
" " 3—6 " " " 	9
" " 6—9 " " " 	3
" " 9—12 " " " 	9
" " over 12 months " " " 	18

As regards the 18 cases of group (a) the first intimation was received from the weekly returns of deaths from the local Registrar.

Notification from Bacteriological examination of Sputa.

During the past year 292 specimens of sputa were sent by medical men to the Municipal Bacteriological Laboratory for examination and report. Of these, 75 were found positive, that is with tubercle bacillus in the sputum ; 64 were notified during the year in accordance with the Public Health (Tuberculosis) Regulations, 1912, and as regards the remaining 11, no notification was received up to 31st December, 1914.

Recently throughout the Country several Insurance Committees have had under consideration the late period of notification of so many cases of tuberculosis ; and consequently have been asking the question—who is to blame for this wastage of human life and loss to the nation ? This aspect of the question, under the new dispensation of Insurance Committees and Health Authorities who are now to undertake the provision of treatment, becomes one of supreme importance ; and certainly it should be of no less importance to the individual whose life is in the balance. As our scheme develops and every facility provided to help in early diagnosis, and as its supreme importance is more and more recognised, then we may reasonably hope that personal interest and diagnostic keenness will rise accordingly, and that the day may be not far distant when an undiscovered case of consumption in the third or last stage of the disease will be rare. The supreme importance of it all simply rests on this fact : That in the early stages of consumption there is a great tendency even to self-cure ; and hence usually with appropriate treatment the disease is curable ; whereas in the middle stages of the disease cure is not so readily achieved even after long treatment, and although the disease may be arrested there is often the liability to relapse, while in the later stages of the disease there remains little hope of either cure or arrest.

Distribution of Cases of Pulmonary Tuberculosis.

Of the 188 cases of pulmonary tuberculosis notified during the past year, 13 were reported from Common Lodging-houses in the Borough, and 28 others were resident temporarily in Dearnley Workhouse at time of notification. Then by reference to the preceding Tables III. and IV. of this section there will be found the ages, ward incidence and months of the year during which the cases were notified. Castleton Moor Ward, with 9 cases, showed the lowest ward incidence, while the remaining cases were almost equally distributed throughout the different wards.

THE TUBERCULOSIS DISPENSARY AND ADMINISTRATIVE PROCEDURE.

The first and most important unit in administrative procedure is the Tuberculosis Dispensary. But, as the general functions of this institution have been very fully discussed in previous reports, they will only here be summarised as follows :—

- (1) Receiving house and centre of diagnosis.
- (2) Clearing house and centre for observation.
- (3) Centre for Curative Treatment.
- (4) Centre for examination of " Contacts."
- (5) Centre for " After-care."
- (6) Information bureau and education centre.

Tuberculosis Dispensary.

These premises are centrally situated at the corner of Yorkshire-street and Elliott-street, and were opened at the beginning of January, 1914. The accommodation is ample, the rooms are well equipped, and the whole premises very suitable for the purposes of the Dispensary. The Dispensary is open each day (except Sunday) from 10 to 12 a.m. in the forenoon, and on Tuesday and Friday evenings of each week from 7 to 8 p.m. The staff at present consists of one Tuberculosis Medical Officer and one Tuberculosis Nurse, who give all their time to this work, and work under the general administration of the Medical Officer of Health.

Administrative Procedure.

On receipt of each primary notification at the Health Office of a case of pulmonary or non-pulmonary Tuberculosis—insured or non-insured—a visit is made as early as possible by the Tuberculosis Nurse or one of the Health Visitors, and the Tuberculosis Dispensary enquiry sheet carefully filled up in each case and submitted to the Tuberculosis Medical Officer. (A specimen copy of this sheet is shown below).

COUNTY BOROUGH OF ROCHDALE—PUBLIC HEALTH DEPT.		No. in Register
		Notification Rec'd.
		Doctor
TUBERCULOSIS DISPENSARY.		Tuberculosis of
Name	Age	Sex .....If married
Occupation and workplace	Previous occupation	
.....		
Able to work full-time.....Or part-time.....Habits.....		
If unable, confined to bed.....How long ill		
Institutional Treatment (In or Out-patient).....No. of Family $\frac{\text{under 12}}{\text{over 12}}$		
Father's occupation.....Mother's occupation		
Type of House, B-B or Thr'gh.....No. of rooms (fireplaces).....Rent		
General aspect of House (clean, damp, dusty, smelly, verminous)		
No. of windows.....Can they be opened.....Light and Sunshine		
Are windows kept open (a) by day.....(b) by night.....Have they always been kept open ...		
How long in present House.....If has moved within two years previous address :—		
.....		
Disinfection of old residence. Dates and details		
Have there been Illnesses or Deaths in House (a) In own time		
(b) In previous occupiers'		
Exposed to Infection (a) at home.....(b) at work.....(c) among friends.....		
Present health of other members of the household		
.....		
What precautions taken to disinfect.....		
T. B. in sputum.....T. B. in dust of room.....Wet dusting.....		
How is washing and drying of clothes done		
Sputum Bottles supplied :—Date.....Disinfectants.....Leaflets		
General Dietary.....		
.....		
Milk supply		
General condition (well-to-do, poor, destitute).....		
Approximate Income of Household		
Assisted by Societies, Church, Friends, Rates.....		
Separate bed		
Separate room		
REMARKS :—		
.....		
(Signed) .....Reporter. ....Medical Officer.		

Advice is given personally and by printed cards by the Tuberculosis Nurses and Health Visitors regarding all such precautions as should be taken when coughing and expectorating, so as to prevent the spread of infection to others ; also the relative advantages and proper methods of dealing with linen and paper handkerchiefs and spittoons ; the value of sunlight, fresh air, and the proper methods of ventilating living rooms and bedrooms ; the value of wet cleansing of rooms to avoid dust ; the necessity for the patient to have a separate bedroom when possible ; proper methods of washing and disinfecting clothes, floors, etc., and any other advice and assistance which the circumstances of the case demands. All sanitary defects discovered or other undesirable conditions are immediately dealt with as far as possible by the Health Staff. Sputum bottles and disinfectants are supplied free of charge from the Dispensary.

DISINFECTION AND CLEANSING.

Upon removal of any patient to Sanatorium, or from one house to another, and in cases of death, the whole house or certain rooms are thoroughly disinfected by the Sanitary Staff by fumigation with formaldehyde gas and spraying of walls with formalin. Instructions as to cleansing of the rooms are given verbally and disinfectant solution is supplied free for this purpose. Where possible the bedding and clothing is removed for disinfection by a Washington Lyons Steam Disinfector. During the past year 315 rooms were disinfected on account of tuberculosis.

From the data collected at the time of primary and subsequent visits and from the enquiry sheet, Tables VIII. and IX. have been compiled. In Table VIII. the data is set out separately in so far as it applies to insured and non-insured persons, and includes size and type of house, particulars regarding house, sleeping accommodation, etc. An examination of this table shows (a) that nearly two-thirds of the cases notified were unable to have a separate bedroom, while the majority of these occupied a bed along with some other member of the family ; (b) that nearly one-third of the houses were more or less damp ; (c) that the means of ventilation in a similar number of houses was neglected ; and (d) that nearly one-half of the cases were classed as of poor means. Further, the figures for the preceding two years are provided for purposes of comparison, but, as to be expected, no great variation is evident.

Table IX. gives the same data arranged on parallel lines with Table VIII. but at time of death, as also the distribution of deaths in the Wards.

The following is the standard adopted as regards the terms Light and Ventilation used in Tables VIII. and IX.

LIGHT		MEANS OF VENTILATION.		
Sufficient	Insufficient	Good	Bad	Used or neglected
<p>(a) If sunny aspect and well lighted in every part of the living rooms.</p> <p>(b) Well lighted without obstruction from surrounding buildings.</p>	<p>(a) Not sunny and only moderately light, with corners of living room dark usually.</p> <p>(b) If no sun at all and a northern aspect it is considered bad.</p>	<p>(a) Through house with all its windows openable and no obstruction to air circulation externally.</p>	<p>(a) Back-to-back house of any kind with or without external obstructions.</p> <p>(b) Any house whose windows are not openable.</p>	<p>Judged according to observation and enquiry at time of visit.</p> <p>Points observed :—</p> <p>Windows screwed up ?</p> <p>State of atmosphere.</p>

TABLE VII.

PHTHISIS.—Particulars of Cases notified during the year 1914.

SIZE OF HOUSE No. of Rooms	No. of Notifica- tions	Ages					TYPE OF HOUSE		PARTICULARS REGARDING HOUSE								No. Damp.	Means of Family or Patient					Habits	Sleeping Accommo- dation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
									Cleanness			Light		Sunshine		Means of Ventilation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
									Clean	Fairly Clean	Dirty	Sufficient	Insufficient	Good	Fair	Sufficient											Insufficient	Properly Used	Neglected																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1 Room ... { Insured Cases { Not Insured Cases

Working Arrangements of Dispensary with Local Medical Committee.

During July of 1914, after six months' experience of the working of the Tuberculosis Dispensary, the local Panel and Medical Committee agreed to the following arrangements :—

- (1) Consultations at the Dispensary for insured patients and such uninsured patients as are recommended by the Medical Practitioners.
- (2) Consultation with the panel doctors regarding the treatment to be granted to insured persons.
- (3) The supply of information to panel doctors upon the return of patients from Sanatoria as to the progress patients have made in Sanatoria, and for deciding in consultation with the doctors the nature of any further treatment to be given.
- (4) That the monthly cards of domiciliary patients be submitted to the Tuberculosis Officer in accordance with the general order on domiciliary treatment of Tuberculosis, July, 1912.
- (5) That the Tuberculosis Officer have permission to visit domiciliary patients monthly, this visit to take the place of the quarterly report which the medical practitioner is supposed to prepare and transmit to the consulting officer under the Tuberculosis Order of July, 1912.
- (6) That the Tuberculosis Officer acquaint the Doctor in charge of any unfavourable symptoms or otherwise, discovered during visitation of domiciliary patients by Tuberculosis Nurse.
- (7) That at least contacts, insured or uninsured, sleeping or who have slept with Phthisical patients, and also any other person in the house with cough or signs of chest trouble, be examined by Tuberculosis Officer.

General summary of work carried on at Dispensary during the year is as follows :—

(a) No. of Insured Cases of Pulmonary Tuberculosis (including some cases carried forward from 1913) examined and reported on by the Tuberculosis Officer	...	...	...	...	...	...	141
(b) No. of uninsured Cases suspected as or suffering from Tuberculosis, examined and reported on	...	...	...	...	...	...	99
(c) No. of Contact Cases examined and kept under observation	...	...	...	...	...	...	47
(d) No. of Cases treated with Tuberculin—							
(1) Cases of Pulmonary Tuberculosis	...	...	...	...	...	...	20
(2) Cases of Surgical Tuberculosis	...	...	...	...	...	...	16
							36
(e) No. of Recorded Visits to Patients by Tuberculosis Nurse	...	...	...	...	...	...	1,450

INSURED CASES OF TUBERCULOSIS.

Pending the completion of the Corporation Scheme, in which it is intended to make provision for all forms of Tuberculosis, the Insurance Committee provide for the treatment of Pulmonary Tuberculosis in the case of insured persons only, and during the past year 141 such cases (88 males and 53 females, including some cases carried forward from 1913) were examined by the Tuberculosis Officer and reported on, together with recommendations as to necessary treatment ; and the treatment granted by the Committee was as follows :—

(a) Sanatorium treatment	...	...	...	...	...	...	45
(b) Hospital treatment	...	...	...	...	...	...	5
(c) Domiciliary treatment	...	...	...	...	...	...	77
(d) Domiciliary and Tuberculin treatment	...	...	...	...	...	...	14
(e) No Treatment (not Phthisis)	...	...	...	...	...	...	1

Table X. gives the whole of the insured cases, tabulated and arranged according to age and sex ; stage of the disease when examined by the Tuberculosis Officer ; result of treatment or the condition of patient at end of year 1914 ; and working capacity before and after treatment. The occupation of each patient is also shown, and arranged in classes such as have been used by the Registrar-General in the Census Returns. The classification of stage of the disease used in Tables X. and XII. is that universally adopted and known as the "Turban Gerhardt." The terms 1st, 2nd and 3rd stage will be understood by reference below, and to the Tuberculosis Dispensary Case Sheet.

STAGE I. Early cases where only a small part of one lobe of one lung is affected.

STAGE II. More extensive than Stage I., but at most involving one lobe of one lung.

STAGE III. Any condition more advanced than Stage II.

CASE SHEET.

Case No.
Date of Notif.
Age
Sex
Tuber. of
Dr.

Name Address

Occupation	<div> <div>At Work</div> <div>Ceased Work</div> </div>	<div> <div>Highest</div> <div>Usual</div> <div>Present</div> </div>
------------------	--	---

Complaints of Duration of Symptoms Temperature.....

HISTORY, *Past*

“ *Family* ”

EXAMINATION

General	- - {	Muscular Development
		Enlarged Glands
		Sweating
		Wasting
		Energy
Respiratory	{	Cough
		Sputum.....T.B.
		Hæmoptysis
		Pain
		Short of Breath
	{	Chest Measurement.....Deflated

Alimentary { *Tongue*
Teeth
Appetite
Bowels
Digestion

Circulatory { Heart
Pulse
Blood

Urinary

Reproductive .

Nervous

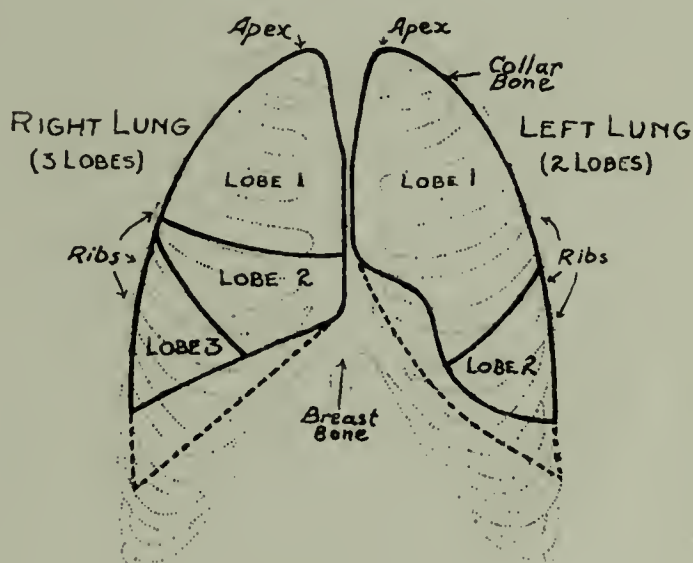
Integumentary

Larynx

Opinion of Case

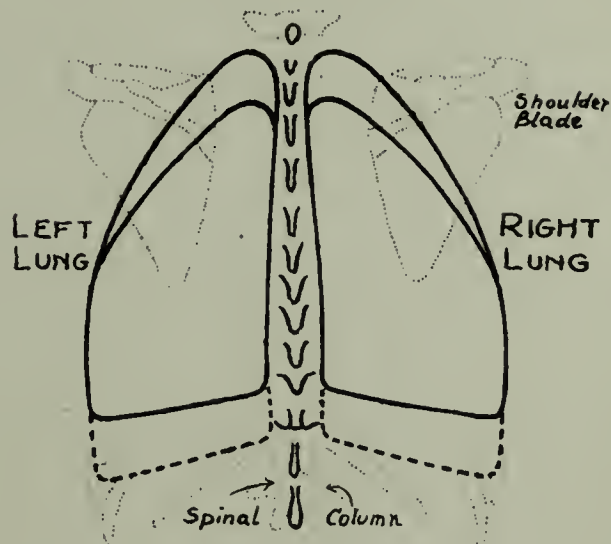
Tests

FRONT VIEW

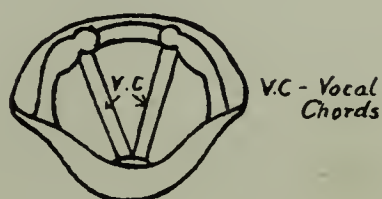


Inflated

BACK VIEW



THROAT



REFERENCE DIAGRAM - TURBAN CLASSIFICATION.

Stage (Turban)

TABLE X.—CASES PASSED BY INSURANCE COMMITTEE FOR SANATORIUM BENEFIT AND SEEN BY THE TUBERCULOSIS OFFICER FROM THE DISPENSARY DURING 1914.
(Including some cases carried forward from 1913).

Age of Patients—years	Totals	Sex	Stage of Disease				Treatment granted by Insurance Committee				Result of Treatment end of 1914					Working Capacity of Patient					Left District	Deaths	Away in Sanatorium end of 1914	Awaiting Admission to Sanatorium end of 1914	Class of Occupation									
			First	Second	Third	Doubtful	Sanatorium	Hospital	Domiciliary	Domiciliary and Tuberculin	Discharge Arrested	Much Improved	Improved	No Change	Worse	Before Treatment			After Treatment (end of 1914)															
																Full	Partial	None	Full	Partial					None									
Column	No.	...	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
16-20	{ 6 13	M.	3	2	1	...	5	...	1	3	...	1	...	...	...	3	...	1	4	...	...	...	...	1	...	...	...	...	3	...	2	...	...
		F.	2	5	6	3	1	7	2	...	1	1	...	2	6	1	1	8	4	...	6	...	...	1	...	...	...	...	...	10	...	...	...
20-25	{ 7 12	M.	1	3	3	...	3	...	1	1	...	1	...	...	2	...	3	2	2	2	2	...	1	...	...	...	...	...	3	...	...	...	...
		F.	3	5	4	...	4	...	6	4	2	...	3	3	...	4	5	4	3	2	4	...	1	2	...	...	...	...	...	10	...	...	...
25-30	{ 12 14	M.	5	3	4	...	2	...	...	2	3	2	3	2	2	1	5	3	4	2	3	...	1	...	...	...	2	...	1	...	5	...	...	...
		F.	6	6	2	...	4	...	6	4	1	4	4	4	1	1	2	7	4	8	3	2	1	...	...	...	...	...	...	...	11	...	...	...
30-35	{ 18 7	M.	4	9	5	...	9	...	9	2	2	2	2	6	2	5	6	2	11	1	1	...	3	...	...	...	4	...	5	1	3	...	...	...
		F.	1	1	5	...	1	2	3	1	...	2	...	...	...	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35-40	{ 19 3	M.	4	6	9	...	6	1	12	...	1	2	2	4	4	6	1	5	6	1	4	2	4	...	...	...	...	2	...	2	6	...	...	...
		F.	...	2	...	1	1	...	2	...	...	1	1	2	2	...	...	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
40-45	{ 8 3	M.	1	4	3	...	4	1	3	...	...	2	1	3	1	1	2	3	3	1	2	1	1	...	...	...	...	5	...	2	...	...	...	...
		F.	...	2	1	...	...	...	2	1	...	...	1	1	1	...	...	...	2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...
45-50	{ 9 ...	M.	2	2	5	...	...	7	2	2	1	1	1	2	1	1	...	5	3	...	3	...	3	...	...	...	2	...	...	3	...	...	...	...
		F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50-65	{ 9 1	M.	1	4	4	...	3	...	6	...	...	1	3	1	2	1	2	4	2	1	4	...	3	...	...	2	...	1	...	...	...	...	...	...
		F.	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL 141	{ 88 53	M. F.	{ 34 ...	54	52	1	45	5	77	14	6	24	22	28	28	24	36	45	55	14	35	5	22	8	2	3	11	8	20	13	62	24		

One patient applying for Sanatorium benefit was diagnosed as Malignant Disease and referred to Manchester Infirmary for Treatment.

REFERENCE TO CLASS OF OCCUPATION.

- CLASS I.—Includes 1 Nursing Sister ; 1 Laundry Worker ; and 1 Domestic Servant.
CLASS II.—Includes 4 Insurance Agents ; 5 Clerks ; 1 Surveyor ; and 1 Traveller.
CLASS III.—Includes 4 Carters ; 1 Railway Worker ; 1 Tram Conductor ; 1 Tram Driver ; and 1 Chanfleurer.
CLASS IV.—Includes 5 Labourers (Iron) ; 3 Fitters ; 2 Iron Turners ; 1 Brass Dresser ; 1 Grinder ; 1 Mechanic ; 1 Electrical Engineer ; 1 Corner Smith ; 1 Tin Smith ; 1 Motor Fitter ; 1 Plate Moulder ; 1 Ware-
Attendan ; 1 Quarryman ; 1 Engine Attendant ; 1 Boatmaker ; 1 Butcher ; and
- CLASS V.—Includes 3 Joiners ; 3 Stone Masons ; 2 Painters ; 1 Bricksetter ; 1 Sawyer ; 2 Labourers (Builder and Plumber) ; and 1 Flagger.
CLASS VI.—Includes 18 Weavers ; 9 Cardroom Operatives ; 9 Ring Spinners ; 6 Winders ; 20 Factory Operatives (Miscellaneous).
CLASS VII.—Includes 6 Labourers (General) ; 3 Saleswomen (Miscellaneous) ; 2 Drapers ; 1 Brush Maker ; 1 Lamp lighter ; 1 Eyelet Packer ; 1 Asbestos Packer ; 1 Leatherworker ; 1 Tailor ; 1 Billiard Hall ; 1 Bootmaker ; 1 Coal Miner ; 1 Butcher ; and

(a) Sanatorium Treatment.

Pending the completion of the Springfield Sanatorium for the Corporation, the Insurance Committee have made arrangements with the Bury & District Joint Hospital Board for the treatment of cases at Aitkin Sanatorium, near Bury. Of the 45 cases granted sanatorium treatment, only 40 (30 males and 10 female cases) were admitted to this institution during the past year; 2 others were awaiting admission at end of year, and the remaining 2 were sent away to Sanatorium privately. Table XII. has been prepared to show the period of stay in the Sanatorium of each group of cases according to the stage of the disease, and also the result of the treatment. 8 of the 40 cases were away in Sanatorium at the end of the year.

In previous reports the past and present position of sanatoria and sanatorium treatment has been fully reviewed; while the true function, position, and scope of benefits which may be expected from sanatorium treatment in any well-organised scheme has also been fully discussed.

(b) Hospital Treatment.

The cases granted Hospital treatment are usually in an advanced stage of Tuberculosis. Only 5 cases were classed to this heading for the past year; 3 were sent to the Dearnley Workhouse Hospital, and 2 to Bury. Unfortunately 4 out of the 5 cases proved fatal, and the fifth was much worse at the end of the year.

(c) Domiciliary Treatment.

This is simply treatment of patients at their own homes under the care and direction of the family Doctor, in accordance with the Order of the Local Government Board dated 26th July, 1912, *re* domiciliary treatment. Each applicant for sanatorium benefit, passed by the Insurance Committee, is automatically placed under domiciliary treatment at once, pending institutional treatment if such is granted by the Committee. Of the 141 applications for sanatorium benefit (including cases from 1913) referred to the Tuberculosis Officer by the Insurance Committee, and reported on after consultation with the patient's medical adviser, 91 were granted domiciliary treatment and received no institutional treatment. In these cases the responsibility for any further treatment such as tuberculin, sanatorium or the additional benefit of nourishments rests with the family practitioner, whose recommendation is forwarded to the Tuberculosis Officer, who then investigates the condition and circumstances of the patient and reports to the Insurance Committee. 14 of the 91 cases received the additional treatment of tuberculin, and for this purpose attended the Dispensary at stated intervals, while 79 were granted special nourishment, such as milk and eggs. The patients who are unable to follow their employment and unable to attend at the Dispensary are visited periodically by the Nurse and by the Tuberculosis Officer when necessary or by request.

TUBERCULIN TREATMENT.

(a) Pulmonary Cases.—In addition to the 14 insured cases of pulmonary tuberculosis already mentioned as having been granted domiciliary and tuberculin treatment by the Insurance Committee, 6 other non-insured cases of pulmonary tuberculosis have received tuberculin treatment during the year, making a total of 20 cases. The essential details regarding this treatment are set out in Table XIII.

(b) Surgical Tuberculosis.—16 cases suffering from this form of tuberculosis were treated with tuberculin during the year, and the details are likewise set out in Table XIV. 7 of these were insured cases. Both tables give the results of treatment up to the end of the year.

To the general reader it may be somewhat difficult to interpret the information contained in these tables, but to endeavour to present any adequate discussion on the present position of tuberculin treatment would require considerable space, and such as is beyond the limits of this report. Still a few brief explanations may be added.

TABLE XI.—SUMMARY OF APPLICATIONS FOR SANATORIUM BENEFIT, 1914.
(Including some cases carried forward from 1913).

	Total Cases	Sex		Ages of Patients—Years								Stage of Disease				Result of Treatment end of 1914					Working Capacity of Patient						Deaths				
		Male	Female	16—20	20—25	25—30	30—35	35—40	40—45	45—50	50—65	First	Second	Third	Doubtful	Disease Arrested	Much Improved	Improved	No change	Worse	Full	Partial	None	After Treatment end of 1914				Before Treatment			Left District
SANATORIUM CASES ...	45	33	12	8	7	6	10	5	5	...	4	12	27	6	...	3	17	7	3	4	9	13	11	22	5	6	1	1	1	1	
HOSPITAL CASES ...	5	2	3	1	2	1	1	1	4	1	1	4
DOMICILIARY CASES ...	91	54	37	10	12	20	13	16	5	8	7	22	26	42	1	3	7	15	25	23	15	23	33	33	9	28	4	4	4	17	

TABLE XII.—CASES OF PULMONARY TUBERCULOSIS SENT TO SANATORIUM BY INSURANCE COMMITTEE DURING 1914.

Stage of Disease before entering Sanatorium (Turkian Classification)	Sex		Ages of Patients—years								Working capacity of patient before entering Sanatorium			Period of Stay in Sanatorium						Result of Sanatorium Treatment					Patients away in Sanatorium end 1914	Working capacity of patient at end of year 1914			Left District	Death since discharge from Sanatorium
	Males	Females	16—20	20—25	25—30	30—35	35—40	40—45	45—50	50—68	Nil	Partial	Full	Under 8 weeks	8-10 weeks	10-12 weeks	12-14 weeks	14-16 weeks	16-18 weeks	Disease Arrested	Much Improved	Improved	No change	Worse		Nil	Partial	Full		
FIRST STAGE	8	4	3	4	1	1	2	...	...	1	5	6	1	1	1	3	1	...	2	3	3	3	1	1	...	4	7	...	1
SECOND STAGE	17	5	3	3	4	4	2	3	...	3	9	10	3	2	2	2	6	5	1	...	12	6	...	...	4	3	14	1	...
THIRD STAGE	5	1	...	...	...	3	1	2	...	...	5	1	1	1	1	1	3	...	...	...	1	1	3	1	...	4	1	...	...
TOTALS	30	10	6	7	5	8	5	5	...	4	19	17	4	4	4	6	10	5	3	3	16	8	4	4	4	22	1	1	1	

(a) The letters PTO., BE, TR, etc., refer to different varieties of tuberculin, which are all prepared from tubercle bacilli. They all vary chiefly as regards strength or toxicity, and are usually administered by subcutaneous injection.

(b) Tuberculins exhibit no specific action on the non-tuberculous or those who have not suffered from Tuberculosis, but on the tuberculous or those suffering from tuberculosis they have a specific action to which different patients show very different degrees of sensitivity.

(c) Hence, as will be noticed, the treatment is commenced with very small doses, and essentially consists in endeavouring by the repeated inoculations of gradually increasing doses at intervals of time for an extended period, to so raise the power of tolerance or immunity of the patient to tuberculin that in the end a maximum dose approaching 1c.c., or one hundred thousand times the initial dose may be inoculated without causing any reaction on the part of the patient, as exhibited in a temporary disturbance of temperature and general health.

(d) Briefly, the theory underlying this treatment is, that while raising the power of tolerance or immunity of the patient to large doses of tuberculin, the immunity of the patient against tuberculosis is simultaneously increased, and that healing is promoted, and liability to extension of the disease or relapse is diminished. The theory in principle is ideal.

(e) But experience has shown that it is only in the earlier stages of the disease that much benefit may be expected from tuberculin treatment, and further, that this process of immunisation of the patient is not by any means free of difficulties and dangers, although with skill, care, and matured judgment these can usually be safely negotiated. But it has to be understood that this treatment is not suitable for all cases, and to some it may be positively dangerous.

(f) Consequently in commencing tuberculin treatment it is a very great advantage to have the patient under close observation, and under the best hygienic conditions, such as are provided in a Sanatorium. Immunisation can then be pushed much more rapidly, and continued as far as necessary or advisable by attendance at the Dispensary afterwards.

(g) Hence some regard must be had to the above facts when considering the results of tuberculin treatment in Tables XIII. and XIV. The greater number of the pulmonary cases were in the second or third stage of the disease, while the non-pulmonary were generally suffering from old or chronic glandular conditions. Further, most of the cases were attending their work as far as possible, and not always under the best hygienic conditions. However, some indication of the extent to which the treatment was beneficial may be roughly measured by the increase or maintenance both of working capacity and the weight of the patient; by improvement of chest or glandular conditions; and by the gradual decrease in quantity of sputum with fewer bacilli.

CONTACT CASES.

As every tubercular patient, when the disease is progressing, is liable at certain stages to become more or less a source of infection to others, unless strict measures for prevention are adopted and faithfully carried out, it is computed that for every annual death from phthisis in any community there are from five to 10 infective persons present in the general population. Hence it becomes of paramount importance to examine all contacts when a case of tuberculosis is discovered. To discover an acute case of tuberculosis in a family, and not to carefully examine all contacts and take all such measures as may be calculated to prevent the spread of infection to the other members of the family and to others is a mode of procedure, in the present state of our knowledge and in view of the machinery now being set up for the eradication of this disease, unthinkable.

It will be seen in this Section under the heading "Working Arrangements of Dispensary with Local Medical Committee," that an endeavour was made in July to make provision for the examination of contacts. The results of this work for the remaining months of the year are summarised in Table XVI.

TABLE XIII.—CASES OF PULMONARY TUBERCULOSIS TREATED WITH TUBERCULIN DURING 1914.

Case No.	Sex.		Age (yrs.)	Occupation	Stage of Disease (urban)	Duration of Tuberculin Treatment	Tuberculin Course		Examination of Sputum		Weight of Patient		Working Capacity of Patient		(Medical terms used in ordinary description are here avoided)
	M.	F.					Initial Doses	Present Doses (end 1914)	Before Tuberculin Treatment	Present (end 1914)	Before Tuberculin Treatment	Present (end 1914)	Before Tuberculin Treatment	Present (end 1914)	
1	...	1	24	Saleswoman ...	II.	Mths. 11	·00005 c.c. P.T.O.	·01 c.c. B.E.	Positive	Sputum less fewer bacilli	Stn. lbs. oz. 7 12 0	7 5 0	Slight	Full	Gradual improvement
2	...	1	41	Housewife ...	II.	10	·0001 c.c. P.T.O.	·01 c.c. B.E.	Positive	Sputum less fewer bacilli	7 11 0	7 9 0	Moderate	Moderate	No appreciable change
3	...	1	25	Packer... ..	III.	10	·0001 c.c. P.T.O.	·0035 c.c. B.E.	Positive	Sputum less fewer bacilli	5 5 0	5 5 0	Nil.	Nil.	Slight improvement.
4	1	...	46	Warp Splitter ...	III.	10	·00001 c.c. P.T.O.	·01 c.c. T.R.	Positive	No sputum	8 4 0	8 8 0	Very slight	Full	Distinct improvement.
5	...	1	52	Reeler	III.	9½	·00001 c.c. P.T.O.	·035 c.c. P.T.O.	Positive	No sputum	6 13 0	7 4 4	Moderate	Full	Distinct improvement.
6	1	...	49	Labourer	II.	3	·00005 c.c. P.T.O.	·01 c.c. P.T.O.	Negative	Negative	7 13 14	8 0 0	Slight	Slight	No change (Fibroid Plithisis).
7	...	1	27	Winder	I.	4	·00001 c.c. P.T.O.	·01 c.c. P.T.O.	No sputum	No sputum	7 12 14	7 11 8	Full	Full	No appreciable change.
8	...	1	29	Winder	III.	6	·0001 c.c. T.R.	·01 c.c. T.R.	Negative	Sputum less	7 9 0	7 9 0	Medium	Medium	Gradual improvement.
9	...	1	27	Cardroom Operative	III. and Neck Glands	6	·0001 c.c. P.T.O.	·007 c.c. P.T.O.	Positive	Sputum more copious Positive	9 2 12	8 13 6	Slight	Slight	Chest condition advancing, but neck glands much less (treatment stopped).
10	...	1	19	Saleswoman ...	I.	5	·00005 c.c. P.T.O.	·006 c.c. P.T.O.	No sputum	No sputum	6 13 0	6 6 4	Full	Full	No marked change.
11	...	1	33	Cardroom Operative	I.	3	·00002 c.c. P.T.O.	·001 c.c. P.T.O.	"	"	9 3 0	9 10 0	Medium	Full	Distinct improvement.
12	...	1	16	Saleswoman ...	II.	4	·00001 c.c. P.T.O.	·001 c.c. P.T.O.	"	"	6 7 12	6 1 8	Full	"	No improvement (treatment discontinued).
13	1	...	7	Scholar	I.	3	·00001 c.c. P.T.O.	·0001 c.c. P.T.O.	"	"	3 10 2	3 13 8	Full	Full	Marked improvement.
14	1	...	29	Cop Packer ...	I.	4	·00001 c.c. P.T.O.	·003 c.c. P.T.O.	No sputum	No sputum	10 7 6	10 7 4	Full	Full	No marked change (joined army)
15	1	...	17	Electrical Engineer	II.	4	·0001 c.c. P.T.O.	·01 c.c. P.T.O.	Negative	No sputum	9 10 8	9 11 2	"	"	Marked improvement (joined navy).
16	1	...	21	Clerk	I. and Neck Glands	3	·00005 c.c. P.T.O.	·008 c.c. P.T.O.	No sputum	No sputum	8 0 4	7 10 0	"	"	Chest no change, but neck glands disappeared.
17	...	1	34	Housewife ...	I.	7	·0001 c.c. P.T.O.	·1 c.c. P.T.O.	"	"	8 6 0	9 1 4	Medium	Full	Marked improvement.
18	...	1	22	Ring Spinner ...	I.	6	·0001 c.c. P.T.O.	·01 c.c. P.T.O.	Negative	No sputum	7 5 8	7 10 4	Slight	"	Gradually improving.
19	1	...	31	Clerk	II.	4	·00001 c.c. P.T.O.	·015 c.c. P.T.O.	Positive	Positive	11 5 4	10 10 12	Full	"	Chest slightly worse (treatment temporarily stopped).
20	1	...	40	Iron Turner ...	III.	2	·0002 c.c. P.T.O.	·001 c.c. P.T.O.	Positive	Positive	7 13 1	7 12 0	Nil.	Nil.	Chest condition worse.

TABLE XIV.—RECORD OF CASES OF SURGICAL TUBERCULOSIS TREATED WITH TUBERCULIN DURING 1914.

Case No.	Sex	Age	Occupation	Tuberculosis of	Duration of Treatment	Tuberculosis		Weight of Patient		Working Capacity		Results at end of December, 1914
						No. of Injections	Doses	Before	After	Before	After	
1	M.	24	Mule Piecer ...	Neck glands (R. side) marked visible enlargement (recurrence—had previous operation)	Months 4½	10	.001 to .005 c.c. B.E.	Stn. lbs. oz. 7 11 8	Stn. lbs. oz. 8 5 4	Partial	Full	Enlargement disappeared, glands now only slightly felt on palpation.
2	M.	16	Paper Tube Maker ...	Neck glands, both sides, extreme enlargement (recurrence—had operation	3	11	.001 to .006 c.c. T.R.	5 6 0	5 7 0	None	Full	Marked decrease in size of glands.
3	F.	23	Weaver ...	Neck glands, both sides, marked enlargement (recurrence—had operation)	8	15	.01 to .015 c.c. B.E.	9 1 4	9 13 0	Full	Full	Marked decrease in size of glands.
4	F.	17	Weaver ...	Submaxillary glands (3), visible enlargement (recurrence—had operation	8	15	.01 to .015 c.c. B.E.	7 6 4	7 6 4	Full	Full	Enlargement almost disappeared and only to be made out by palpation.
5	F.	26	Housewife ...	Cervical glands, bilateral and extreme (Phthisis R. apex?)	3 in Sanatorium 3½ Tuberculin	Weekly	.001 to .008 c.c. B.E.	7 13 8 (After Sanatorium Treatment)	7 13 0	Partial	Full	Marked diminution in size of glands. Now no visible enlargement.
6	M.	14	Paper Mill Hand ...	Cervical glands, bilateral and extreme	5	12	.001 to .003 c.c. B.E.	5 0 8	5 3 4	Partial	Full	Glands rapidly disappearing.
7	M.	20	Moulder ...	Arthritis, left knee	3	5	.01 to .01 c.c. B.E.	(Patient in bed and not weighed)		None	None	No change.
8	M.	57	Labourer ...	Arthritis, left wrist, with well marked Phthisis	3	14	.0001 to .0025 c.c. B.E.	7 3 4	7 1 13	None	None	Wrist condition worse.
9	M.	19	Bobbin Carrier ...	Lupus Erythematosus	4	Weekly	.0001 to .005 c.c. P.T.O.	7 6 4	7 4 4	Partial	Full	Cleared up entirely.
10	F.	23	Cardroom Worker ...	Sinus after operation on Sacrum for T.B. disease	2½	5	.005 to .015 c.c. B.E.	9 5 4	9 0 4	Partial	Partial	Sinus or wound discharging less and looking better.
11	M.	56	Joiner ...	Sinus after operation on Ribs for T.B. disease	2½	6	.005 to .015 c.c. B.E.	11 2 12	11 2 6	Partial	Partial	Discharge rather less and Sinus look more healthy.
12	F.	8	Scholar ...	Old standing T.B. corneal ulceration with T.B. of Iris	5	15	.0000001 to .000008 c.c. T.R.	3 4 2	3 8 0	Partial	Partial	Eye condition improving.
13	F.	6	Scholar ...	Peritonitis	2½	8	.00001 to .0001 c.c. P.T.O.	3 2 8	3 2 4	None	None	Slight improvement. Abdominal fluid has disappeared.
14	F.	10	Scholar ...	Cervical glands, unilateral and slight enlargement	6 wks.	4	.0001 to .001 c.c. T.R.	4 1 8	4 2 4	Full	Full	No change.
15	M.	21	Clerk ...	Posterior cervical glands, R. side	3½	Weekly	.0001 to .01 c.c. P.T.O.	8 0 4	7 10 4	Full	Full	Glands disappeared.
16	M.	32	Turner... ..	Arthritis, right knee	1	12	.01 to .015 c.c. B.E.	In bed.		None	None	No change.

TABLE XV.

Tuberculosis Contacts Examined at Dispensary, 1914.

Family No.	Result Diagnosis of Contacts	Totals	Ages of Contacts—years							Relationship of Patient to Contact		Remarks
			Under 5 years	5—10	10—15	15—20	20—25	25—30	Over 30 years	Patient's Age	Relation	
1	Positive	2	...	...	...	1	...	...	1*	18	Brother	Patient's father and one brother died of Consumption. His mother and sister now diagnosed as suffering from Consumption.
	Negative	3	1	1	1	...	...	...	...
	Doubtful	3	...	1	1	1	...	...	...
2	Negative	1	...	...	...	...	...	...	1*	38	Father	Three of patient's brothers and sisters died of Consumption, and his two children are now diagnosed pre-tubercular.
	Doubtful	2	...	1	1	...	...	...	...
3	Negative	2	...	...	...	1	...	...	1*	37	Father	No family history of Consumption.
	Doubtful	1	...	...	1	...	...	...	...
4	Positive	1	...	...	...	...	...	1	...	20	Sister	No family history of Consumption.
	Doubtful	1	...	...	...	...	1	...	...	
5	Positive	1	...	...	...	1	...	...	...	21	Brother	Brother died of tubercular enteritis. No other family history of tuberculosis. Patient's mother affected with tubercular abscess. One sister died of tubercular enteritis.
	Negative	1	...	...	1	...	...	...	...
	Doubtful	1	...	...	...	1	...	...	...
6	Positive	3	...	...	1	1	...	...	1*	34	Father	No family history of Consumption.
	Negative	2	1	1	...	...	...	...	...
	Doubtful	1	...	1	...	...	...	...	...
7	Negative	2	1	...	...	...	...	...	1*	40	Father	Patient's Father died of Consumption.
	Doubtful	1	...	1	...	...	...	...	...
8	Positive	2	...	1	...	...	...	1*	...	27	Father	No family history of Consumption.
	Negative	1	1	...	...	...	...	...	...
	Doubtful	1	...	1	...	...	...	...	...
9	Negative	1	...	1	...	...	...	...	...	34	Father	No family history of Consumption.
	Doubtful	2	...	...	1	...	...	...	1*			
10	Negative	1	...	1	...	...	...	...	...	7	Brother	No family history of Consumption.
11	Negative	3	1	1	...	...	...	...	1*	31	Father	No family history of Consumption.
	Doubtful	2	...	2	...	...	...	...	...
12	Negative	2	...	1	...	...	...	...	1*	38	Father	No family history of Consumption.
13	Negative	2	...	2	...	...	...	...	...	38	Father	No family history of Consumption.
	Doubtful	1	...	...	1	...	...	...	...
14	Positive	1	...	...	...	1	...	...	...	18	Sister	No family history of Consumption.
	TOTALS ...	47	5	16	8	7	1	2	8			

* Mother.

In the case of each family, the positive and doubtful cases were referred to the respective medical men in attendance.

It will be seen that 47 persons who had been contacts with phthisical patients in the same house, and members of 14 different families were examined by the Tuberculosis Officer either at the Dispensary or their own homes. These contacts were chiefly children, and the results as follows :—

Positive Cases of Tuberculosis	...	...	...	...	...	16
Doubtful	„	„	„	...	...	16
Negative	„	„	„	...	...	21

The 26 positive and doubtful cases were referred to the family Medical Attendant.

In the searching out of contact cases and all such cases who by appropriate treatment and preventive measures can be prevented from becoming victims of tubercular disease at a later date in life, the Tuberculosis Dispensary will perform one of its highest and most humane of functions.

UNINSURED CASES IN RELATION TO DISPENSARY.

During the year 99 uninsured persons, of whom 31 were school children, were sent to the Dispensary by their medical advisers and the School Medical Officer for the following purposes :—

(a) For diagnosis	...	...	...	...	...	69 cases
(b) For Tuberculin Treatment	...	...	...	...	...	20 „
(c) For purposes of observation	...	...	...	...	...	10 „

Certain details of these cases are presented in Table XVI., and may be briefly summarised thus—

(a) 69 cases : result of diagnosis.

Pulmonary Tuberculosis—48	...	...	...	...	...	Stage I., 27 cases Stage II., 14 „ Stage III., 7 „
Surgical Tuberculosis	...	...	...	...	...	8 „
Doubtful	...	...	...	...	...	6 „
Other Diseases	...	...	...	...	...	7 „

The patients diagnosed as suffering from Tuberculosis were referred to their own Medical Advisers ; and in the case of Surgical Tuberculosis the tuberculin treatment was discussed with the Medical Attendant in such cases as presented hope of benefit. Some of the pulmonary cases obtained Sanatorium treatment through charitable sources.

(b) Cases for Tuberculin Treatment.

Of the above 20 uninsured persons sent to the Dispensary for tuberculin treatment, it was advised to be tried as regards 13 of the cases, and some of these are included in Tables XIII. and XIV. ; while as regards the remaining 7 cases it was not considered advisable.

(c) Cases for Observation.

These were doubtful cases with some suspicion of Tuberculosis. Each of the cases attended the Dispensary as was considered necessary, and when a definite or probable diagnosis was made, a report was sent to the Medical Man in charge, who took such further steps as he considered necessary.

TABLE XVI.

Uninsured Cases of Tuberculosis and suspected Tuberculosis examined at the Dispensary during 1914.

GROUP A.—Cases sent for Diagnosis.

Sex	Age yrs.	Occupation	Diagnosis	Treatment recommended	Remarks
F.	7	Scholar ...	Early Phthisis right upper lobe (Stage I.) ...	...	Under observation at Dispensary.
M.	32	Labourer ...	Early Phthisis left apex (Tuber- culin test*) (Stage I.) ...	...	Referred own Doctor.
F.	34	Housewife ...	Early Phthisis right upper lobe (Tuberculin test*) (Stage I.) ...	Domiciliary and Tuberculin ...	Referred own Doctor.
M.	14	Scholar ...	Phthisis right upper lobe (Stage II.)	Domiciliary ...	Referred own Doctor.
M.	9	Scholar ...	Phthisis both apices (Stage II.) ...	Sanatorium	Referred to own Doctor.
M.	20	Iron Turner ...	Phthisis right upper lobe (Stage II.)	...	Referred to own Doctor.
F.	36	Housewife ...	Advanced bilateral Phthisis (Stage III.) ...	...	Unsuitable for Sanatorium
M.	17	Piecer ...	Tubercular arthritis of wrist (Tuberculin test *) ...	Hospital ...	Operation case. Referred to own Doctor.
F.	34	Doubling Piecer	Hæmorrhage of mouth and nose ...	...	Referred to own Doctor.
F.	7	Scholar ...	Tubercular peritonitis ? ...	Hospital	...
M.	...	Mill Hand ...	Tubercular Epididymitis (Tuber- culin test *) ...	Hospital ...	Operation case.
M.	7	Scholar ...	? Phthisis right apex with enlarg- ment of right cervical glands (Stage II.) ...	...	Referred to own Doctor.
F.	...	School Teacher	Debility and Bronchitis (Tuber- culin test negative) ...	...	" "
F.	...	Housewife ...	Early Phthisis (Tuberculin test *) (Stage I.) ...	...	" "
M.	10	Scholar ...	Phthisis right side (Stage I.) ...	Domiciliary ...	" "
F.	...	Corset Maker ...	Catarrh of right upper lobe (Tuber- culin test negative) ...	...	" "
F.	21	Tenter ...	Phthisis & Bronchitis (Stage II.)	Hospital ...	Transferred to Dearnley Workhouse Hospital.
F.	61	Housekeeper ...	Phthisis left base, with Pleurisy (Stage I.) ...	...	Referred to own Doctor.
F.	29	Maternity Nurse	Tubercular pyelitis and cystitis ...	...	" "
M.	28	Wheelwright ...	Old tubercular pleurisy left base with Consumption (Stage I.) ...	...	" "
F.	23	Carder ...	Early Phthisis right lung ? (Tuber- culin test *) (Stage I.) ...	...	" "
M.	7	Scholar ...	Early Phthisis left lung (Stage I.) ...	Tuberculin and Domiciliary	...
M.	7	Scholar ...	Early Phthisis right upper lobe (Stage I.) ...	...	Referred to own Doctor.
M.	7	Scholar ...	? Congenital dislocation of hip ...	...	Referred for X-Ray photo- graph.
F.	11	Scholar ...	Commencing Phthisis right upper lobe (Stage I.) ...	...	Under observation and referred to own Doctor.
F.	8	Scholar ...	Arrested Phthisis right apex. ...	...	Referred to own Doctor.
F.	28	Confectioner ...	Debility and Anæmia ...	...	" "
F.	32	Maternity Nurse	Bilateral Phthisis (Stage II.) ...	...	" "
M.	18	Clerk ...	Miliary Tuberculosis ...	...	" "
F.	...	Teacher ...	Miliary Tuberculosis of Lungs (Stage III.) ...	...	" "
M.	4	Scholar ...	Right-sided Empyema ...	...	Sent to Hospital for operation.
M.	39	Woollen Weaver.	Nervous disease and Phthisis (Stage II.) ...	...	Unsuitable for Sanator- ium treatment.
M.	5	Scholar ...	Phthisis right upper lobe (Stage I.)	...	Sent to Country Farm.

* Positive.

TABLE XVI. *Continued*—GROUP A.

Sex	Age yrs.	Occupation	Diagnosis	Treatment recommended	Remarks
F.	46	Charring ...	Bilateral Phthisis (Stage III.) ...	Domiciliary ...	Referred to own Doctor.
F.	28	Weaver ...	Early Phthisis right upper lobe (Stage I.) ... ..	...	Advised to apply for Sanatorium benefit.
F.	28	Ring Spinner ...	Phthisis right upper lobe (Stage II.)	...	Hospital case.
M.	42	Carmen ...	Bilateral Phthisis (Stage III.) ...	...
M.	18	Moulder ...	Tubercular arthritis left knee ...	Tuberculin and Domiciliary	(Tuberculin test *)
F.	11	Scholar ...	Early Phthisis (Stage I.)	Domiciliary ...	Sent to Hardman Street Hospital, Manchester.
F.	12	Half-timer ...	Early Phthisis right upper lobe (Stage I.) ... ..	...	Sent to Hardman Street Hospital, Manchester, for Sanatorium treat- ment.
M.	...	Painter ...	" " " "	...	Referred to own Doctor.
M.	16	Scholar ...	Morbus Coxal (Tuberculin test*) ...	Hospital ...	Case for Institutional treatment.
F.	40	Housewife ...	Phthisis left base (Stage I.) ...	...	Referred own Doctor.
F.	32	Cardroom Op. ...	Phthisis right upper lobe (Stage II.)	Domiciliary ...	" "
F.	55	Reeler ...	Phthisis right upper lobe (Stage II.)	...	" "
M.	9	Scholar ...	Bronchiectasis ... ..	...	" "
M.	18	Woollen Weaver.	Phthisis right apex (Stage I.) ...	...	" "
F.	17	Weaver ...	Phthisis (Stage III.)	Domiciliary ...	
F.	6	Scholar ...	Tubercular Peritonitis	Tuberculin and Domiciliary ...	Slight improvement.
F.	12	Scholar ...	Phthisis? ... ..	...	Under observation at Dispensary.
F.	6	Scholar ...	Bronchial Catarrh ... ..	...	Referred to own Doctor.
F.	34	Housework ...	Heart Disease. Incipient Phthisis (Stage I.) ... ..	...	" "
M.	11	Scholar ...	Early Phthisis right apex (Stage I.)	...	Sent to Country Farm.
M.	19	...	Early Phthisis left lung (Stage I.)...	...	Referred to own Doctor.
F.	9	Scholar ...	Phthisis left upper lobe and right base (Stage II.) ... ..	...	Sent to Country Farm.
M.	53	Spinner ...	Phthisis right upper lobe (Stage I.)	...	Referred to own Doctor.
F.	8	Scholar ...	Phthisis? ... ..	...	Under observation at Dispensary.
M.	6	" ...	Commencing Phthisis right base (Stage I.) ... ..	...	Sent to Country Farm.
M.	9	" ...	Commencing Phthisis right apex (Stage I.) ... ..	...	Referred to own Doctor.
F.	9	" ...	Bronchial Catarrh ... ..	...	Recommended to Con- valescent Home.
F.	23	Asbestos Worker	Early Phthisis right apex (Stage I.)	Domiciliary ...	Advised to apply for Sanatorium benefit.
M.	14	Turner ...	Tuberculosis in both upper lobes. (Tuberculin test*) ... ..	...	Recommended for Con- valescent Home.
F.	9	Scholar ...	Pre-Tubercular ... ..	...	Referred to own Doctor.
F.	20	Weaver ...	Tubercular glands ... ..	...	Unsuitable for Sanatorium
F.	13	Scholar ...	Bilateral Phthisis (Stage III.) ..	...
F.	33	Housewife ...	Bilateral Phthisis with pregnancy (Stage II.) ... ..	...	Sent to Hardman Street Hospital, Manchester.
F.	26	Housewife ...	Tubercular glands of neck ...	Tuberculin and Domiciliary ...	Improved.
F.	10	Scholar ...	Commencing Phthisis left upper lobe (Stage I.)	"	Under observation.
F.	22	Teacher...	Bilateral Phthisis (Stage II.) ...	...	Referred to own Doctor.

TABLE XVI.—Continued.

GROUP B.—Cases sent for Tuberculin Treatment.

Sex	Age yrs.	Occupation	Diagnosis	Treatment recommended	Remarks
F.	43	Housewife ...	Advanced bilateral Phthisis (Stage III.) ... ..	...	Referred to own Doctor. Case unsuitable for Tuberculin (Old Sana- torium case)
M.	16	Weaver ...	Tubercular glands of neck... ..	Tuberculin and Domiciliary ...	In statu quo.
M.	18	Bobbin Carrier ...	Tubercular skin of face	"	Disease disappeared.
F.	23	Weaver ...	Tubercular glands of neck	"	Much improved.
F.	17	" ...	" " " " " " " " " " " "	"	
M.	21	Clerk	Slightly enlarged post obscure glands	"	Enlargement of gland disappeared.
M.	31	"	Phthisis right upper lobe (Stage II.)	"	Tuberculin stopped after 3 months. Still under observation. Old Sanatorium case.
M.	26	Fitter	Tubercular neck scar ... ..	...	Tuberculin unnecessary.
F.	8	Scholar	Phlyctenular Conjunctivitis with tuberculosis right eye	Tuberculin and Domiciliary	
M.	40	Iron Turner ...	Fibroid Phthisis (Stage III.) ...	"	Tuberculin stopped after two visits. Patient not improving.
M.	24	Piecer in Mill ...	Tubercular glands of neck, R. side	"	Much improved.
M.	34	Blacksmith ...	Chronic Bronchitis & Emphysema	...	Referred to own Doctor.
M.	16	Woollen Piecer	Tubercular glands of neck ...	...	Unsuitable for Tubercu- lin treatment.
M.	14	Paper Mill Hand	" " " " " " " " " " " "	Tuberculin and Domiciliary	Much improved.
M.	56	Turner	Tubercular sinuses over ribs ...	"	Slight improvement.
F.	10	Scholar	Tubercular glands of neck, R. side	"	No change in patient's condition.
F.	23	Rover, Cardroom	Tubercular sinuses of buttock ...	"	Improved.
M.	14	Leather Worker	Bilateral Phthisis (Stage III.) ...	...	Only suitable for Domi- ciliary treatment.
F.	10	Scholar	Tubercular glands right side neck	...	Glands softening, case unsuitable for Tubercu- lin treatment.
F.	18	None	Tubercular glands of neck, knees and Dactylitis	Hospital ...	Not suitable for Dis- pensary treatment.

TABLE XVI.—Continued.

GROUP C.—Cases sent for Observation.

Sex	Age yrs.	Occupation	Diagnosis	Treatment recommended	Remarks
M.	21	Warehouseman	Phthisis both upper lobes (Stage II)	...	Old Sanatorium case. Under observation at Dispensary and at- tending own Doctor.
F.	41	Mill Hand ...	Heart disease & Phthisis (Stage II.)	Domiciliary ...	Referred to own Doctor. Since died of heart trouble.
F.	24	Ring Piecer ...	Phthisis of left upper lobe (Stage II.) ... ..	...	Old Sanatorium case. Under care of own Doctor and under observation at Dis- pensary.
F.	35	Housewife ...	Advanced heart with bilateral Phthisis (Stage III.) ... ..	...	Old Sanatorium case. Since died of heart trouble.
M.	45	Shuttle Maker	Arrested Phthisis right side (Stage II.)	Domiciliary ...	Old Sanatorium case. Under observation at Dispensary and under care of own Doctor.
F.	29	Slubber ...	Tuberculosis of larynx and left upper lobe (Stage II.) ... ..	...	Under observation at Dispensary. Patient since died.
F.	6	Scholar	Phthisis left lung (Stage II.) ...	...	Old Sanatorium case. Patient decided to go to more suitable cli- mate.
M.	14	... ..	Phthisis right lung (Stage II.) ...	...	Old Sanatorium case. Under observation at Dispensary.
M.	17	Railway Worker	Phthisis both upper lobes (Stage II)	...	Under observation at Dis- pensary and also receiving treatment from own Doctor.
M.	12	Scholar	Phthisis right lung (Stage II.) ...	...

SECTION III.

Departmental Work.

HEALTH VISITORS.

The work of the Health Visitors continues to be chiefly the care of the infants, with the view of reducing our too high infantile mortality. Also, in so far as necessary, the supervision of the midwives.

In preceding reports, and especially in the report of last year, arguments based on certain facts were adduced to show that, if we are to work successfully towards a further reduction in infantile mortality, the work of the Health Visitors will require to be placed on a very different basis of organisation ; and in view of the circular letter issued by the Local Government Board of 30th July, 1914, we may hope that at an early date we may see the work of the Health Visitors and Midwives reorganised and co-ordinated in connection with a centre for maternity and child welfare as outlined in the above-mentioned circular letter.

Up to the present we have treated the infant too much as a detached entity ; whereas every infant has a mother, and a parental inheritance which indelibly impresses itself on the life history of every child. In the past the working mothers, although the salt of the earth, have never yet received the sympathetic consideration which the burdens of maternity demand. The welfare of the child is inseparably and inviolably bound up with the welfare of the mother.

A statistical summary of these and kindred duties is given for the past and two preceding years in the following table :—

Summary of Health Visitors' Visits.

	1914	1913	1912
Total Visits	5,917	6,416	5,500
Revisits for purpose of supervising the carrying out of the suggestions and advice given—especially regarding infant nursing and feeding ...	3,480	3,759	3,035
Births	1,946	2,112	1,966
Infant Deaths	209	186	181
Diarrhœa Deaths (over 1 year of age)	1	9	1
Phthisis Deaths	65	85	88
Puerperal Fever	7	6	8
Complaints	6	2	9
Midwives	52	67	32
Dirty Houses, &c. ... ..	...	3	...
Phthisis Notifications	145	177	180
Other forms of Tuberculosis ... ..	...	2	...
Miscellaneous (Scarlet Fever, Measles, etc.)	6	8	...

Administration of Midwives Act, 1902.

The Local Supervising Authority under this Act is the Town Council, and the work is carried on by two Health Visitors acting under the supervision of the Medical Officer of Health.

During the past year 1914, 52 midwives gave notice of intention to practice, being one less than during the year 1913.

The following cases were reported to the Committee during the past year :—

	No. of Mid- wives affected	Action taken
Dirty and irregular habits : Neglect of Central Midwives' Board Rules ...	2	Cases reported to Central Midwives' Board : the name of one of the midwives has been removed from the Roll and her certificate can- celled. In the other case the Board have found the charges proved and adjourned sentence for six months.
Attending patients suffering from Puerperal Fever	5	Each midwife was suspended from practice until bag, appliances and clothing were disinfected by the Health Department ; and instruc- tions given to the midwife regard- ing disinfection of herself.

The two midwives reported to the Central Midwives' Board were both of the older type. They laboured under the disadvantage of not being able to read or write, and consequently were unable to follow the rules and regulations.

Notifications.

The following is a summary of the notifications which have been received at this office during the year, from midwives, in accordance with Rule 21 of Central Midwives' Board Rules.

(a) Notifications of sending for Medical help :—

MOTHER—

Delayed Labour	...	...	...	...	90
Difficult and Obstructed Labour	...	...	...	...	82
Ruptured Perineum	...	...	...	...	45
Adherent Placenta	...	...	...	...	13
Placenta Previa	...	...	...	...	2
Retained Membranes	...	...	...	...	3
Hæmorrhage, Anti-partum	...	...	...	...	3
Hæmorrhage, Post-partum	...	...	...	...	9
Uterine Inertia	...	...	...	...	6
Malpresentations	...	...	...	...	28
Weak Condition of Mother	...	...	...	...	15
Miscarriage	...	...	...	...	5
Kidney Troubles	...	...	...	...	4
Abdominal Pains	...	...	...	...	4
High Temperature	...	...	...	...	6
Pre-natal Causes...	...	...	...	...	1

BABY—

Debility	13
Premature Birth...	17
Inflammation of Eyes	31
Skin Disease	4
Spina Bifida	1
Deformities	5
	<hr/>
	71
	<hr/>

(b) Other Notifications—

Still-births	4
Death of Baby before arrival of Doctor	3
Laying out the Dead	4

Ophthalmia Neonatorum.

Commencing on 1st April, 1914, this disease was made compulsorily notifiable throughout England and Wales, and according to the Regulations, any purulent discharge from the eyes of an infant, commencing within 21 days from date of its birth, must be notified as Ophthalmia Neonatorum by either the Doctor or Midwife.

During the nine months of compulsory notification 30 cases of Ophthalmia Neonatorum have been notified in this Borough. These cases were seen by the Health Visitors, who in each case directed such measures to be taken as appeared most appropriate, and as far as possible the cases were referred to the medical men.

The Notification of Births Act, 1907

This Act continues to be a useful means whereby the receipt of early information of births allows an early visit by the Health Visitor to such houses where, from previous knowledge and experience, they consider some advice is desirable or necessary. During the past year (1914) 1,859 notifications were received under this Act, and these are tabulated in the following table in comparison with the previous year.

	1914		1913	
	No. of Births	Per-centage	No. of Births	Per-centage
Births Notified by Midwives	1,679	90·3	1,714	87·4
" " Medical Men	144	7·7	190	9·7
" " Parents	36	2·0	58	2·9
TOTAL	1,859	100·0	1,962	100·0
Births not Notified	50		53	

Of the 50 births not notified, 18 occurred in Dearnley Workhouse.

The number of Still-births notified under this Act, and included in above, was 96.

Still-Births.

Under the provisions of the Notification of Births Act, 96 Still-births have been notified during the year, as against 111 in the previous year 1913.

Of the 96 cases of Still-births, 50 were male births and 46 female births :—

In 12 cases a medical man was in attendance.

In 21 cases a midwife was in attendance.

In 63 cases a midwife was in attendance and a medical man called in later.

As far as could be ascertained the causes of the Still-births are given in the following summary :

Premature Labour	...	...	...	...	...	16
Contracted Pelvis	...	...	...	...	...	7
Difficult Labour	...	...	...	...	...	31
Malpresentation ...	...	...	...	...	...	5
Placenta Previa ...	...	...	...	...	...	3
Albuminuria ...	...	...	...	...	...	4
Illness of Mother	...	...	...	...	...	8
Shocks and falls	...	...	...	...	...	10
Strain during pregnancy	...	...	...	...	...	2
Dead some time before birth	...	...	...	...	...	6
Not ascertained ...	...	...	...	...	...	4
						<hr/> 96 <hr/>

In 32 cases the mother was a primi para, and in 42 cases the mother had been engaged in work outside the home during the greater part of pregnancy.

MUNICIPAL BACTERIOLOGICAL LABORATORY.

The Laboratory at the Town Hall continues to fulfil a very useful purpose in assisting in the diagnosis of certain diseases. During the past year 701 specimens were examined, the details of which are shown in the following table along with previous years.

Number of Specimens examined during 1907-1914.

YEAR	SUSPECTED DISEASE.																TOTALS			
	Diphtheria				Enteric Fever				Tuberculosis				Other Diseases (Chiefly Ringworm Hair)							
	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Total	Positive	Negative	Doubtful	Totals
1907	2	5	...	7	2	9	...	11	25	12	...	37	2	1	...	3	31	27	...	58
1908	2	10	...	12	8	9	1	18	9	16	...	25	...	2	1	3	19	37	2	58
1909	15	41	3	59	4	10	...	14	5	29	...	34	1	2	...	3	25	82	3	110
1910	3	26	...	29	6	14	...	20	18	34	...	52	1	...	5	6	28	74	5	107
1911	25	30	3	58	2	13	1	16	33	83	...	116	94	26	10	130	154	152	14	320
1912	45	47	11	103	9	19	...	28	62	115	...	177	193	60	15	268	309	241	26	576
1913	45	74	15	134	18	14	4	36	64	194	3	261	178	62	11	251	305	344	33	682
1914	92	86	22	200	11	9	9	29	75	216	1	292	128	45	7	180	306	356	39	701

SALE OF FOOD AND DRUGS ACTS.

213 samples of food and drugs have been taken in connection with these Acts, as against 220 in 1913, a decrease of 7.

Of these 213 samples 152 were formal and 61 informal.

The following is a classification of the samples :—

DESCRIPTION	Number taken		Result of Analysis	
	Formally	Informally	Genuine	Adulterated
Milk	132	3	124	11
Skimmed Milk	7	...	7	...
Butter	3	7	10	...
Cream	3	4	7	...
Lard	2	6	8	...
Cheese .....	...	2	2	...
Coffee	1	1	2	...
Pepper	1	2	3	...
Dripping (Beef) .....	...	1	1	...
Brandy	1	...	1	...
Camphorated Oil .....	...	2	2	...
Castor Oil .....	...	3	3	...
Olive Oil .....	...	2	2	...
Whiskey (Scotch) .....	...	6	6	...
„ (Irish) .....	...	6	6	...
Soda Water .....	...	11	11	...
Ammoniated Quinine ...	...	1	1	...
Sweet Spirit of Nitre ...	2	3	1	4
Ground Ginger .....	...	1	1	...
TOTALS	152	61	198	15
	213		213	

The full analysis of the milk samples in connection with which proceedings were taken is given in the following Table :—

No.	PERCENTAGE OF			Extent of Adulteration
	Fatty Solids	Non-fatty Solids	Water	
129	2.37	8.89	88.74	22.0 per cent. deficiency in fat
130	2.67	7.75	89.58	8.8 per cent. of extraneous water
138	2.98	7.36	89.66	13.4 „ „ „
146	2.24	8.41	89.35	25.0 per cent. deficiency in fat
147	1.93	9.05	89.02	35.0 „ „ „
158	4.04	7.72	88.24	9.1 per cent. of extraneous water
287	2.59	8.95	88.46	14.6 per cent. deficiency in fat
306	2.70	8.58	88.72	10.0 „ „ „
307	2.89	8.03	89.08	5.5 per cent. of extraneous water

Of the 11 samples of milk reported as adulterated 2 were taken informally. With regard to the other 9 samples legal proceedings were instituted. Particulars of the cases are given in the following Table, along with notes on other offences under the Act.:—

No.	Date of Hearing	OFFENCE	RESULT
—	1914 Apl. 1	Refusing to sell milk to Inspector	Fined 10/6 and costs.
129	Do.	Selling milk deficient in fat to extent of 22.0%	Fined £1 1s. and costs.
130	Do.	Selling milk with 8.8% of added water ...	Fined £5 and costs.
138	Do.	Selling milk with 13.4% of added water ...	Fined £5 and costs.
146	Apl. 29	Selling milk deficient in fat to extent of 25.0%	Fined 10/6 and costs.
147	Do.	Selling milk deficient in fat to extent of 35.0%	Fined 40/- and costs.
158	May 13	Selling milk with 9.1% of added water ...	Dismissed on payment of costs.
267	Nov. 11	Selling Sweet Spirit of Nitre deficient in ethyl nitrite to extent of 60% ...	Fined 10/6 and costs.
268	Do.	Selling Sweet Spirit of Nitre containing no ethyl nitrite	Fined 10/6 and costs.
287	Dec. 16	Selling milk deficient in fat to extent of 14.6%	Fined. Ordered to pay the costs.
306	1915 Jan. 29	Selling milk deficient in fat to extent of 10.0%	Fined £2 and costs.
307	Do.	Selling milk with 5.5% of added water ...	Fined £2 and costs.

MILK AND CREAM REGULATIONS, 1912.

The following is the report of Administration in connection with the Public Health (Milk and Cream) Regulations, 1912, year ending 31st December, 1914 :—

I.—MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

	(a) Number of samples examined for the presence of a preservative	(b) Number in which a preservative was reported to be present
Milk	142	Nil.
Cream	Nil.	Nil.

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it.

II.—CREAM SOLD AS PRESERVED CREAM.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct

(I.) Correct Statements made	... ..	7
(II.) Statements incorrect	... ..	—
		<hr/> 7 <hr/>

(b) Determinations made of milk fat in cream sold as preserved cream.

(I.) Above 35 per cent.	...	...	...	...	...	7
(II.) Below 35 per cent.	...	...	...	...	...	—
						<hr/> 7 <hr/>

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed.

In 2 cases the receptacle containing the preserved cream was without label.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.

In the cases mentioned under heading II. (c) the vendor was cautioned by the Health Committee.

III.—THICKENING SUBSTANCES.

Any evidence of their addition to cream or preserved cream. Action taken where found.
Nil.

IV.—OTHER OBSERVATIONS (if any).

The Borough Analyst reports that in each sample analysed the Boric Acid present did not exceed the amount stated on the label.

COWSHEDS AND DAIRIES.

During the year 215 visits were made by the Dairy Inspector to the dairy farms in this district. The chief defects with remedial measures adopted are summarised as follows :—

- | | | | | |
|-----------------------------------|-----|-----|-----|---|
| (1) Defective Stalls | ... | ... | ... | In every case new floors to stalls were provided. |
| (2) Defective middensteads | ... | ... | ... | New middensteads were provided in suitable places. |
| (3) Defective piggeries | ... | ... | ... | New piggeries provided in suitable positions and old piggeries abolished. |
| (4) Defective floors of shippon | ... | ... | ... | Such floors made good or relaid. |
| (5) Defective drainage of shippon | ... | ... | ... | In several cases a new drainage system was put in. |

In 4 cases the cows in shippons were found in a dirty condition.

In 45 cases shippons were found dirty and required to be thoroughly linewashed and cleansed.

On one dairy farm 3 shippons were abolished and a new shippon provided capable of holding 20 cows, giving each animal nearly 800 cubic feet of air space.

Since the publication of the Report on an investigation as to the conditions of the Cowsheds, Dairies and Milk Supply of this district in 1909, followed by the introduction of Regulations with respect to Dairies, Cowsheds and Milkshops, we have had consistently in view the general improvement of the Cowsheds and Dairies in this district. For if the aim of the Health Authority is to secure for the area of its administration a reasonably clean and pure milk supply, then surely it is the first duty of that authority to adopt such measures as will secure that the structural and sanitary arrangements at all Dairy Farms are such as may be reasonably expected to facilitate, rather than retard, the efforts of any dairyman who may be so disposed to endeavour to produce a reasonably clean and pure milk. The progress of this general improvement scheme, mainly through ineffective legislation, general apathy, and the unwillingness of landlords to spend money on their properties, I regret to state has been somewhat slow. However, during the present year there is the hope of a considerable amount of important work of reconstruction being carried out on many more of the dairy farms in this district, on some of which the work is already begun.

It is very satisfactory, however, to be able to report that in many cases a very perceptible higher standard of cleanliness is now maintained both as regards the cleanliness of shippens, cows, and the treatment of the milk vessels ; but the due appreciation of cleanliness and care during the process of milking and the handling of the milk leaves much to be desired in very many cases.

MILKSHOPS.

There are at present 42 such shops for the sale of milk on the Register ; and during the year these shops were systematically visited. In addition to these, 19 shops were discovered in which milk was sold although the occupier of the premises had not registered. Of these, 4 persons gave up the selling of milk rather than be registered, while in 3 cases the premises were considered totally unsuitable for the storage and sale of milk. On the whole very few of the present milkshops in this Borough could be considered as satisfactory in view of the new Regulations now issued for the control of milkshops ; and it will be necessary in the case of many such milkshops that such improvements be carried out as will comply with the Regulations for the control of all premises where milk is to be stored and sold. It has to be added, however, that only small quantities of milk are sold at these milkshops, as the great bulk of the milk sold in this Borough is produced either within the Borough area or surrounding districts, and is therefore brought to town and delivered or sold direct from the Dairymen's float.

The chief defects usually found are summarised as follows :—

- (a) Permanently defective milk vessels.
- (b) Milk vessels and other utensils in dirty condition.
- (c) Vessels of defective type for storage purposes.
- (d) Leaving vessels uncovered ; this was found to be the case on 17 occasions when shops were visited.

MILK AND DAIRIES ACT, 1914.

In spite of the various Acts of Parliament and Orders founded thereon for the control and improvement of the milk supplies, no one can fail to be impressed with the general consensus of opinion, that the conditions, under which milk is produced and distributed in England to-day, are still very unsatisfactory, both from the standpoint of general hygiene and the safeguarding of the Public Health. That such conditions still exist must be considered as largely attributable to the somewhat lame and halting character of the legislation provided, combined with the general shyness on the part of many local authorities to put into full and effective operation such powers as are provided. Hence the persistent unsatisfactory conditions under which, according to the opinion of many who have had considerable administrative and analytical experience, that milk, instead of being as it ought to be one of the cleanest of foodstuffs, is probably one of the dirtiest, although it is one of the most important. Any system of administration under which the chief duties of the Food and Drugs Inspector is to play the part of the detective, in taking samples of milk at intervals for purposes of chemical analysis only, must be considered just as ineffective as the endeavours in the past to secure abatement of the smoke nuisance by a brother official acting in a somewhat similar detective capacity ; or as ineffective as the endeavours to secure adequate control of the Meat Supply in any community where there is no public abattoir, and where on account of the large number and widely-scattered slaughter-houses the work of the Meat Inspector is again largely reduced to playing the part of the detective. Such means alone will never achieve the end in view, as there is not infrequently manifested an element in human nature which may be stimulated to evade that which an effort is made to detect, and no Inspector can be ubiquitous. True success in the first place is more likely to be achieved in each case, by such specific education, as leads to rational conviction of the advantages of adopting the more scientific methods, which are at the same time proved to be the more profitable ; and by endeavouring to establish in this manner a mutual basis of co-operation in working towards the same end ; and in the second place, when the law in its operation and administration removes all ways and means of evasion ; and finally secures that in all matters pertaining to foodstuffs, adulteration is in the end an unprofitable business.

The new Milk and Dairies Act of 1914, which comes into operation on the 1st October of the present year, may be considered as an abridgement of the original Bill as presented to Parliament. Its chief provisions may be summarised as follows :—

- (1) Powers to prohibit the sale of Tuberculous milk.
- (2) Powers to investigate by inspection and bacteriological examination any milk supply and to stop such milk supply if found likely to cause Tuberculosis.
- (3) Powers to establish milk depots.
- (4) Extension of powers to Local Government Board to make Orders respecting milk and dairies.
- (5) Other provisions of this Act extend or amend existing powers for the taking of samples of milk ; provide for the appointment of veterinary inspectors ; determine regulations as to imported milk ; and very important, provision for the enforcement of duties of Local Authorities.

Apart from Sections (1) and (2) which provide powers for the prevention of the sale of Tuberculous milk ; and which may be considered as the necessary and inevitable compliment of the other extensive measures now being adopted for the control of the spread of Tuberculosis ; the main development of the operations of this Act may be expected to depend on such Orders as may be issued by the Local Government Board under Section (4) since the purposes for which, such general or special Orders may be issued, shall include the following purposes, as set out in the Act :—

- (a) The registration with local authorities of all dairies ;
- (b) The inspection by persons authorised by the local authority for the locality in which the dairy is situate, of dairies and persons in or about dairies who have access to the milk or to the churns or other milk receptacles ;
- (c) The prevention of danger to health from the sale for human consumption, or from the use in the manufacture of products for human consumption, of infected, contaminated, or dirty milk ;
- (d) The prohibition of the addition of colouring matter and the prohibition or regulation of the addition of skimmed or separated milk, or water, or any other substance, to milk intended for sale for human consumption, or the abstraction therefrom of butter-fat or any other constituent, and the prohibition or regulation of the sale for human consumption of milk to which such an addition or from which such abstraction has been made, or which has been otherwise artificially treated ;
- (e) The regulation of the cooling, conveyance, and distribution of milk intended for sale for human consumption, or for use in the manufacture of products for human consumption ;
- (f) The labelling, marking, or identification and the sealing or closing of churns, vessels, and other receptacles, of milk for sale for human consumption or used for the conveyance of such milk ;
- (g) Authorising the use in connection with the sale of milk of the designation " certified milk " prescribing the conditions subject to which milk may be sold under such designation and prohibiting the use of such designation in connection with the sale of milk in respect of which the prescribed conditions are not complied with.

It will be observed that under this Section II. (f) powers are provided to deal with the practice adopted recently by several dairymen in this Borough and described in my previous Report, of affixing to their milk cans labels on which appeared a Notice having for its object the protection of the Seller from legal proceedings in the event of the milk being found below the standard required by law.

Under (a) it is hoped that at last we are arriving at a rational conception of what should be registered : that it should be the Dairy in its widest sense and not the name of the occupier. The registration of the mere name provides no guarantee that the dairy premises are satisfactory or are such that with reasonable care the trade of a dairyman could be carried on in such manner as to produce a wholesome and reasonably clean milk ; and further it is to be hoped that some general standard of requirements will be adopted to which all dairies and cowsheds must comply before they can be registered.

Reviewing the Act generally and having regard to the causes of failure in the past to secure an adequate control of the Milk-supplies, some probabilities of the organisation of the whole milk trade are now foreshadowed. It will undoubtedly remain the duty of the Local Authority to ensure that all dairies comply with some definite standard of requirements before registration ;

and of no less importance to make adequate provision for the analysis of all milk sold both as regards cleanliness, adulteration and bacterial content. The present procedure of taking samples at intervals from dairy carts en route for purposes of chemical analysis in view of the detection of adulteration, usually with water, provides no reliable guarantee as regards the general quality or wholesomeness or cleanliness of the milk supplied as a whole in any community.

In any organisation of the milk trade in this district the establishment of some system of co-operation amongst the dairy farmers themselves, combined with such co-operation with the Local Authority as may be calculated to ensure adequate supervision both as regards the collection, treatment and distribution of milk presents many advantages. By such an arrangement one can conceive of all milk produced for sale in this Borough collected by rapid transit to some central depot or depots provided for its reception, careful analysis, and treatment before distribution.

The extent of the co-operation of the Local Authority in any such scheme may vary in degree up to complete municipalisation according to the special circumstances prevailing in each district ; but in any such scheme the adequate supervision of the work of the milk depots, as also the nature and extent of the work of analysis must be determined by the Local Authority. But on the other hand such a scheme presents many advantages to dairy farmers, besides eliminating the temptation to adulteration and the evasion of the law, the systematic inspection and analysis of all milk at the depots would provide records by means of which the dairy farmers who supply a good quality of milk would be recognised and encouraged, while an important stimulus would be provided for others to improve their position when the differentiation of each dairyman is made to depend entirely on the quality of the products he supplies. Probably no feature in this Act, under any such scheme as outlined above, presents greater possibilities for the reduction of infantile mortality, than the provision which can be made at all such depots for the preparation, treatment and distribution of infants' milk by the Health Authorities. Since going to press it has been determined to postpone the operation of this Act until after the war.

MEAT INSPECTION.

It is again a pleasure to report that the relations between those engaged in the meat trade and this department continues friendly ; and in many cases we are pleased to recognise a spirit of co-operation in administrative work.

There are 28 recognised slaughter-houses within the Borough, as against 30 during the previous year. One license has been withdrawn and one slaughter-house has been disused for this purpose. 24 of the 28 slaughter-houses are on yearly license, while 4 are registered.

The number of carcasses examined during the year is as follows :—

Carcasses of Beef	...	...	...	...	...	5,327
„ Mutton	...	...	...	...	...	7,541
„ Pork	...	...	...	...	...	2,139
„ Veal	...	...	...	...	...	310
TOTAL						15,317

Percentage of Carcasses affected.

The total number of carcasses found on inspection to be affected in more or less degree with one or other of the diseases or conditions as set out in the subjoined table was 237, or 1.54 of the total number inspected.

Tuberculosis.

Of these, 104 carcasses showed evidence of being affected with Tuberculosis ; and in 21 cases the whole carcass was surrendered, while in 83 cases either portions of carcass or organs affected were seized or surrendered.

The total amounted to 10,000 lbs. of meat seized or surrendered and destroyed as unfit for human food.

Number of Cases Notified by Butchers.

It is very satisfactory to report that during the year, in 93 cases, when the carcasses showed signs of disease, notification was made to this department by the butchers concerned.

Number of Cases discovered on inspection.

- (a) In 54 cases, where the carcasses showed signs of disease at time of slaughter, no notification of same was made to this department. These cases were discovered by the Inspector on visits to slaughter-houses.
- (b) In 83 cases, diseased conditions were found during the process of slaughtering at time of visit by the Inspector. In these cases there was no time to notify.

The commercial value of all meat seized or surrendered during the year approximates £500. When a municipal abattoir is available it may be possible and profitable to utilise all diseased meat by various processes of sterilisation and treatment, as now carried on largely on the Continent; or in the manufacture of bye-products. Further, with an abattoir it should be possible to utilise blood, offal, etc., to much greater extent than at present for the purpose of the manufacture or preparation of bye-products.

Fried Fish Shops.

In many of these shops the business is conducted in a satisfactory manner. Good frying stoves or cookers have been provided, the shops are kept clean and smells avoided as far as possible. In other cases the conditions are not satisfactory, and these have received considerable attention during the past year.

No. of visits to Fish Shops	103
No. found to be in a satisfactory and cleanly condition	28
No. found to be kept in a fairly cleanly condition	44
No. found to be kept in a dirty condition ...	13
Occupiers of fried fish shops using tripe dripping for either frying fish or chips...	42
Occupiers of fried fish shops using beef dripping for either frying fish or chips...	7
Occupiers of fried fish shops using cotton seed oil for either frying fish or chips...	24
Occupiers of fried fish shops using American lard for either frying fish or chips...	20
Occupiers of fried fish shops using composition lard for either frying fish or chips	5
Occupiers of fried fish shops using own rendered fat for either frying fish or chips	2

OFFENSIVE TRADES.

The premises at which offensive trades are carried on in this Borough are as follows :—

Tripe Boiling	4
Gut Scraping	2
Fellmongers	3
Tallow Melter	1
Knacker's Yard	1

Number of visits to premises during the year 1914 :—117.

In 4 cases premises were found to be in a dirty condition and were thoroughly limewashed and cleansed.

BLACK SMOKE ABATEMENT.

The recorded observations during 1914 number 305, or 34 less than during 1913. The observations are for a period of one half-hour each, and were confined to 69 of the chimneys belonging to the working manufactories in the town. Of these 69 chimneys, 17 were kept more regularly under observation than the rest on account of the frequent emission of black smoke; the number of observations on these 17 chimneys was 167, and varied from 20 to 6 for each chimney.

The total number of minutes during which black smoke was found to issue from the 69 chimneys was 305, an average of 1.9 minutes for each observation, as against an average of 1.2 minutes per observation during 1913. The time limits fixed by the Committee were exceeded on 27 occasions, or once for every 11 observations taken, as against once for every 12 observations

taken during 1913, and resulted in notices being served or proceedings being instituted. The time limits for one half-hour's observation are :—

- 1.—Chimneys with one, two or three boilers working—3 minutes ;
- 2.—Chimneys with four or more boilers working—4 minutes.

In case of chimneys having one, two or three boilers working the limit was exceeded 25 times, against 22 times in 1913 ; and of chimneys having four or more boilers working, the limit was exceeded twice, against four times in 1913.

The following Table gives particulars of the issue of black smoke from these chimneys :—

Issue of Dense Black Smoke on 27 occasions when time limits were exceeded.

	No. of Observations	Total Issue in Mins & Secs		Average No. of Mins & Secs per Observation		Average No. of Mins & Secs per Boiler		Number of Cases in which Smoke-Preventing Appliances were—		
		M.	S.	M.	S.	M.	S.	In Use.	Partly in use	Not in Use.
1, 2 or 3 Boilers Working	25	130	5	5	12	2	30	7	1	17
4 or more Boilers Working	2	11	50	2	75	1	11	0	2	0
Both cases combined	27	141	55	5	15	2	17	7	3	17

In 7 cases, against 9 in 1913, legal proceedings were instituted with the results shewn below :—

Legal Proceedings for Abatement of Black Smoke Nuisance.

No. of Firm on Register	Date of Hearing	OFFENCE	RESULT
55	Mar. 4	Emitting 3½ minutes of black smoke in half-hour	Order for abatement within 28 days and pay costs.
92	May 1	Emitting 4 minutes 2 seconds of black smoke in half-hour ...	Order for abatement within 28 days and pay costs.
89	Sept. 16	Emitting 4 minutes 29 seconds of black smoke in half-hour ...	Order for abatement within 28 days and pay costs.
107	Oct. 30	Emitting 8 minutes 48 seconds of black smoke in half-hour ...	Order for abatement within 28 days and pay costs.
135	Oct. 30	Emitting 8 minutes of black smoke in half-hour. Failing to comply with an Order made 4/11/08 ...	Fined 10/- and costs.
121	Nov. 25	Emitting 6 minutes 24 seconds of black smoke in half-hour ...	Order for abatement within 28 days and pay costs.
134	Nov. 25	Emitting 3 minutes 24 seconds of black smoke in half-hour	Order for abatement within 28 days and pay costs.

Table showing number of Carcasses or Parts of Carcasses or Organs and other Foodstuffs which have been seized or surrendered as unfit for human food.

	No. affected	Carcasses					Lungs	Hearts		Kidneys	Livers		Heads		Fat	Sets of Offal	Weight in lbs.	Other Food Stuffs		
		Part	Whole					Ox	Pig		Ox	Pig	Ox	Pig						
			Beef	Beef	Mutton	Pork													Veal	Sheep	Pig	Calf
Tuberculosis ...	104	7	4	...	16	1	...	...	1	29	...	...	10	...	4	6	560 lbs.	59	10,884	Fruit, 693 lbs.
Septicæmia ...	4	...	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	326	Fish, 116 lbs.
Abscesses ...	11	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	110	Black Puddings, 38 lbs.
Fatty Degeneration ...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	20	Potted Meat, 39 lbs.
Pericarditis ...	14	...	...	...	...	...	...	...	...	...	5	9	...	...	...	...	...	...	34	88 Yorkshire Ducks
Nephritis ...	3	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	6	2 cases Frozen Rabbits
Cirrhosis ...	37	...	...	...	...	...	...	...	...	...	...	...	...	14	23	...	...	...	278	4 Ducks
Uræmia ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	112	1 case Foreign Eggs
Sarcoma ...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	40	Miscellaneous, 601 lbs.
Dropsy & Emaciation ...	17	...	...	10	7	...	...	...	...	...	...	...	...	...	...	...	...	...	1007	
Echinococcus Cysts ...	11	...	...	...	...	...	...	...	...	11	...	...	...	7	...	...	...	2	230	TOTAL WEIGHT :
Spot'd Cap. Angiomatosis ...	3	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	30	8 tons 5 cwt. 5st. 7lbs.
Imperfect Bleeding ...	9	...	...	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	533	
Jaundice ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	192	
Died in transit ...	...	...	...	11	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1064	
Natural Death ...	6	...	...	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	634	
Pyæmia ...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	262	
Melanosis ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	65	
Dog Worrying ...	4	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	145	
Actinomycosis ...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	120	
Total ...	237	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unwholesome ...	...	...	...	...	...	...	...	...	11	30	...	...	...	...	...	...	...	...	...	1032

FACTORY AND WORKSHOPS ACTS.

Retail Bakehouses.

The number of bakehouses now on the Registers is 192. Each of these has been visited and inspected at least twice—once in April, and once in October; further visits depending on the necessities of each case. Following is a list of work done in connection with Retail Bakehouses :—

Number of Inspections of Retail Bakehouses	...	...	...	372
Cleansing and Limewashing carried out on intimation from				
Inspector	...	...	...	79
Pail Closet converted to W.C.	...	...	...	1
Wall-paper stripped off	...	...	...	1
Walls repaired	...	...	...	1
Floors repaired	...	...	...	3
Flue repaired	...	...	...	1

A high standard of cleanliness has again been maintained without resort to the service of any statutory notices in respect of work to be done.

Workshops.

152 inspections of workshops (distinguished from workshop bakehouses) have been carried out during the year. The provision of suitable sanitary accommodation has received consideration contemporarily with the work of pail-closet conversion; in every case in which a workshop or bakehouse has formed part of a block of premises where pail-closets were to be converted the closet for the workshop has also been converted or additional water-closets provided.

Another feature of workshop inspection has been the provision of hoods and flues for the proper carrying off of fumes from gas burners or heaters in milliners and other workrooms. The general conditions existing at the workshops and workplaces are reasonably good, and no opposition to suggestions for small improvements has been experienced by the inspectors.

Following is a summary of work carried out in connection with workshops :—

No. of Inspections of Workshops	...	...	...	...	152
Workshops cleansed and limewashed	...	...	...	...	14
Workshops properly ventilated	...	...	...	...	1
Pail closets converted	...	...	...	...	3
Additional water-closets provided	...	...	...	...	2
Closet accommodation for sexes separated	...	...	...	...	1
Wall-paper stripped	...	...	...	...	1
New lavatory basin provided	...	...	...	...	1

Factories.

24 inspections of factories have been made principally in connection with complaints received from H.M. Inspector of Factories. These complaints again referred chiefly to the want of closet doors, fasteners and screens, but have, in a large number of cases actually resulted in conversion of pail-closets to the water-carriage system, and in the provision of properly constructed drains.

Reports of action taken in respect of the complaints have been duly forwarded to H.M. Inspector of Factories.

Homework.

4 inspections of outworkers' premises have been made during 1914. In each case the conditions and conduct were satisfactory. The work in connection with the Factory and Workshops Acts is summarised below :—

1.—INSPECTION.

Number of Inspections of Factories	...	...	...	...	24
„ „ Workshops and Workplaces	...	...	...	...	152
Total	...	...	...	...	176

2.—DEFECTS FOUND AND REMEDIED.

* Want of cleanliness	...	...	...	...	...	...	...	15
Want of ventilation	...	...	...	...	...	...	...	1
Overcrowding	...	...	...	...	...	...	...	—
Want of drainage of floors	...	...	...	...	...	...	...	—
Other nuisances	...	...	...	...	...	...	...	9
Sanitary accommodation—insufficient	...	...	...	...	...	...	...	3
unsuitable or defective	...	...	...	...	...	...	...	4
not separate for sexes	...	...	...	...	...	...	...	1
Total								33

3.—HOME WORK.

OUTWORKERS' LISTS (S. 107).

NATURE OF WORK.	Lists received from Employers.				No. of Addresses of Outworkers		No. of Inspections of Outworkers Premises
	Twice per year		Once per year		received from other Councils	forwarded to other Councils	
	Lists	Out- workers	Lists	Out- workers			
Making, etc., of Wearing Apparel.	2	2	2	4	...	5	4

4.—REGISTERED WORKSHOPS.

No. of Workshops on Register (S. 131) at the end of the year 258.

* NOTE.—The item "Want of cleanliness," above does not include the cases of bakehouses which were limewashed twice during the year on intimation from the inspector, and which numbered 79.

5.—OTHER MATTERS.

MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—

Failure to affix abstract of Factory and Workshops Act (S. 133)	0
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act ...	7
Notified by H.M. Inspectors	7
Reports (of action taken) sent to H.M. Inspectors	6

UNDERGROUND BAKEHOUSES (S. 101)

Certificates granted during the year	...	...	...	...	...	0
In use at end of year	...	...	...	...	...	8

NUISANCES UNDER PUBLIC HEALTH ACTS.

The work under this section connected with abatement of nuisances in and around dwellings as distinguished from the remedying of defects found in Bakehouses, Workshops, Slaughterhouses, Cowsheds, Ice-cream Manufactories, etc., and of nuisances from Black Smoke, has been considerable. Besides the usual district inspection, resulting in the abatement of a large number of nuisances, many complaints from persons outside the department have been dealt with. The number of complaints so received was 124, and in each case the premises have been visited and reported on, and the defects found remedied in the usual way. In addition to the inspection of houses and of miscellaneous inspections (numbering over 1,500) the following work has been necessitated :—

Work in connection with Nuisances.

NATURE OF INSPECTIONS, ETC.	No.
Inspections of Work in progress	1,433
Re-inspections to ascertain if work in progress	361
Owners interviewed concerning nuisances	380
Occupiers interviewed concerning nuisances	121
Preliminary Notices sent out	98
Statutory Notices served	24
Drains tested (7 found defective)	12

The miscellaneous inspections include :—13 inspections of waste-water closets and 41 inspections with regard to overcrowding.

Statement of the Removal of Nuisances in and around Dwellings.

(Not including works carried out in connection with Conversion of Pails except when stated.)

NATURE OF WORK DONE	No.
HOUSES—	
Houses limewashed and cleansed by Owners	28
" " " " Occupiers	36
" repaired —walls and ceilings	13
" " —floors	1
" " —roofs	23
" rendered dry—walls and ceilings	4
Light and Ventilation improved	3
Water removed from cellars	2
Cases of overcrowding remedied	7
Slopstone provided	1
ACCUMULATIONS—	
Offensive Accumulations removed	8
Stagnant Water removed	2
Cellar Areas cleansed	3
CLOSETS—	
Midden-prives converted to water-closets and dry ash-places	49
" " " " pail closet	0
Pail-closets converted into water-closets (under Public Health Act)	1
" repaired or altered	26
" urine guides fixed	3
Closets cleansed and limewashed	12
Additional water-closets provided (under Public Health Act)	0
Water-closets repaired or altered	11
" cleansed	3
" basins renewed	0
Waste water-closets repaired or altered	0
" " opened and cleansed	2
ASHPLACES—	
Additional ashplaces or ashbins provided (Public Health Act)	1
Ashplace floors raised and flagged	6
Ashplaces repaired or reconstructed	56
DRAINS—	
Main drains reconstructed (including additional drainage work carried out in connection with conversions)	31
" extended	2
Drains efficiently trapped	0
" provided with ventilating shafts	21
" " access chambers	18
" repaired only	5
" opened and cleansed	85
" inside buildings abolished	1
Cellar drains repaired or reconstructed	4
" removed to areas	2
Manholes made good	3

Statement of the Removal of Nuisances in and around Dwellings—Continued.

NATURE OF WORK DONE	No.
WASTE-PIPES, ETC.—	
Bath and lavatory waste-pipes repaired or disconnected from drains	3
Rain-water pipes repaired or renewed	52
„ „ disconnected from drains	74
Eavestroughing repaired or renewed... ..	12
Kitchen waste-pipes disconnected from drains	9
„ „ trapped, lengthened or repaired	21
YARDS AND PASSAGES—	
Back yards paved or flagged	16
„ surfaces repaired or repaved	5
„ cleansed	3
Common yards flagged, paved or channelled	4
„ cleansed	4
„ surfaces repaired	7
Back passages paved	2
ANIMALS, EFFLUVIA, ETC.—	
Removals of animals and fowls improperly kept	9
Trade effluvium nuisances near dwellings abated	2
Manure pits repaired or reconstructed	3
„ cleansed	5
„ abolished	1
„ provided	4

INFECTIOUS DISEASES.

403 cases of Infectious Disease have been taken to Marland Hospital by the Removal Officers, whilst 335 other cases were isolated at home. On each occasion a schedule containing information relating to sanitary conditions at the homes, the name of the person supplying milk to the family, and the probable source of infection, as well as particulars of persons in contact, and of other members of the family, was made up by an Inspector who specially inspected each of the homes. These, and subsequent inspections where cases were isolated at home, necessitated 750 visits during the year. The following table classifies the cases dealt with:—

Disease	Removed to Hospital	Isolated at Home	Total
Small Pox	5	...	5
Scarlet Fever	300	177	477
Diphtheria	82	70	152
Enteric Fever	16	4	20
Erysipelas .....	...	77	77
Puerperal Fever ...	...	6	6
Acute Poliomyelitis	...	1	1
TOTALS	403	335	738

DISINFECTION.

The total number of rooms which were disinfected by fumigation and spraying was 1,211; 315 of these were at dwellings in which Phthisis had occurred and where death of or change of residence by the patient had taken place, and the remaining 896 were at dwellings from which patients had been removed to hospital, or had been isolated at home and recovered or died.

The total number of articles disinfected by means of the Steam Disinfector or otherwise, the number of articles destroyed by permission, and the number of rooms fumigated, etc., are shown below :—

Work of Disinfection.

ARTICLES PASSED THROUGH STEAM AND HOT AIR DISINFECTOR :—

Mattresses	...	...	...	...	...	...	...	...	46
Beds	...	...	...	...	...	...	...	...	697
Bolsters, Pillows and Cases	...	...	...	...	...	...	...	...	2187
Sheets and Quilts	...	...	...	...	...	...	...	...	1354
Blankets	...	...	...	...	...	...	...	...	1181
Underclothing	...	...	...	...	...	...	...	...	1291
Shawls, Bodices and Skirts	...	...	...	...	...	...	...	...	335
Carpets and Rugs	...	...	...	...	...	...	...	...	106
Miscellaneous Articles	...	...	...	...	...	...	...	...	1272
Midwives' Appliances specially treated	...	...	...	...	...	...	...	...	10
Bedding, etc., destroyed with consent of owners	...	...	...	...	...	...	...	...	1067

Rooms fumigated or sprayed—

After Phthisis	...	...	...	...	...	...	...	315
After other Infectious Diseases	...	...	...	...	...	...	...	844
After Small-pox Contacts	...	...	...	...	...	...	...	52

The following schools have also been sprayed and fumigated in consequence of the occurrence of Infectious Disease :—

C. School	...	...	...	...	...	...	...	1 room
St. M. B. School...	...	...	...	...	...	...	...	4 rooms
G. School	...	...	...	...	...	...	...	10 rooms

CANAL BOATS ACTS.

70 inspections of Canal Boats have been made during the year. All the boats except one, which required painting and some repairs to the cabin, were found to comply with the Regulations.

CONVERSION OF PAIL CLOSETS, MIDDEN PRIVIES, ETC.

Progress of the work of Conversion.

Period	Number Scheduled and notice served for Conversion	Water-closets installed			Number of Pail-closets abolished	Number Work in progress or in hands of Contractors
		Pail-closets Converted	Additional Total	Total		
June to Dec., 1911	618	164	21	185	2	191
Up to end 1912	1,865	841	49	890	30	275
Up to end 1913	3,094	1,808	101	1,909	46	441
Up to end 1914	3,865	2,475	193	2,668	58	402
To end of June, 1915	3,933	2,617	204	2,821	67	406
Work for each year						
1912	1,247	677	28	705	28	...
complete 1913	1,229	967	52	1,019	16	...
year 1914	771	667	92	759	12	...

The above table presents the work done as regards pail-closets during the past four years. At the end of 1911 the total number installed was 185 ; at end of 1912, 890 ; at end of 1913, 1909 ; at end of 1914, 2,668. Thus during the past year 759 water-closets have been fixed, and of this number, as seen by the table, 92 are additional or new for which no contribution is made. These have been added when the sanitary accommodation has been considered insufficient, or in some cases when existing joint accommodation has been made separate for each house.

Many examples of these improvements for 1914 appear in the tabulated statements given below, but as a financial measure of the work done since the commencement of the work of conversion it may be stated that for the first 2,475 closets converted to the end of 1914 the amount of contribution paid by the Corporation was £5,206 3s. 4d., or an average of £2 2s. 0d. per closet, while the total cost of conversion work and schemes of improvement connected therewith amount approximately to £16,937. The owners of property have thus spent approximately £11,731 in actual conversion work and works of improvement ; while to this it has to be added that during the same time approximately £1,620 has been spent by property owners in the conversion of privy-middens, for which there has been no contribution. Thus during the past three years property owners in this Borough have spent on such works of improvement as here indicated approximately £13,400.

SEPARATE PAIL CLOSET CONVERSION.

Additional Works carried out in connection with Pail Closet Conversion.

Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
453	1	Out buildings re-arranged. Closet and ashbin provided.
664	2	Old closets and ashplaces demolished. New W.C.'s and ashbins provided, drain repaired.
891	6	Closet buildings altered to comply with regulations, 3 rain-water pipes disconnected from drains, drains repaired.
887 898 904	8	Main drain relayed. Manhole provided, one additional W.C. provided inside.
962	5	Main drain and five branches reconstructed, two access chambers and vent. shaft.
970	2	Main drain and two branches reconstructed.
1023	4	Common yard provided, main drain extended, old closet buildings removed, 4 new W.C.'s and ash-bins provided in more accessible position.
1051	14	14 closet buildings rearranged to comply with regulations.
1061	1	Old ashplace abolished. Galvanised iron ash-bin provided, drain repaired
1062	1	Closet building altered to comply with regulations, drain repaired.
1064	1	Existing W.C. in bathroom and existing soil-pipes replaced, bath fittings and waste pipe overhauled, rain-water disconnected from drain, portion of drain relayed in concrete.
1066	1	Old drain removed, new branch provided.
1092	4	Old buildings removed, new W.C.'s and scullery provided, drain reconstructed in iron, two chambers and vent provided.
1094 1095	2 and 2 Slaughter- houses and stables	Old buildings removed, new W.C.'s and ash-bins provided, main drain and four branches reconstructed, provided with chambers and vent shaft.
1151	1	Drain repaired, manhole made good, cellar drain fixed in area.
1156	1	Additional pail closet converted.
1157	2	Drains repaired.
1163	2	Closet buildings re-arranged.

Ref. No. in Register	No. of Houses	PARTICULARS OF WORK
1170	3	Main drain extended. Manhole provided.
1176	3	Main drain reconstructed, and four branches and two chambers and vent. shaft provided.
1181	5	All yard drains reconstructed.
2015	1 and workshop	Old closet building removed, two W.C.'s and ash-bins provided, drain repaired.
2016 2059 2060	6	Main drain in passage and all yard branches reconstructed, two access chambers and vent. shaft provided.
2021	1	Drain repaired, manhole provided.
2022-4	3	Closet building altered to comply with regulations, drains repaired.
2029	1 workshop	New passage drain with two access chambers and vent. shaft provided, old closet buildings removed and two new W.C.'s erected, private yard made and enclosed, surface flagged.
2031 2032 2039 2040	Workshop 42	Conversion for workshop. 40 rain-water pipes disconnected from drain, 19 drains repaired.
2041	1	New W.C. building erected, old wooden building removed.
2055	2	One additional W.C. provided.
2057	1	Drain repaired.
2067	3	Drain repaired.
2068-9	6 and workshop	New W.C. and lavatory basin provided for workshop.
2072	1	Additional water-closet provided for Public House.
2099	1	Additional water-closet provided for Public House.
2131	3	One additional W.C. provided, main drain relaid.
2143	1	Pail closet converted, and one abolished.
2144	Shop	Pail closet converted, drain repaired.
2173	1	Old closet abolished, new W.C. and ash-bin provided.
2188	2	Additional W.C. provided, drains extended.
2189	1	Drains reconstructed, closet building removed and rebuilt in suitable position, yard enlarged, new W.C. and bath and lavatory also provided inside.
2190	Shop	Conversion for shop.
2197	2	Ashplaces reconstructed, drain repaired.
2243	1	Drain repaired, rain-water pipe disconnected from drain, W.C. fixed in bathroom, bath and lavatory waste-pipes rearranged.
2312	1	Drain repaired, provision made for inside W.C.
2319	1	Drain repaired, rain-water pipe disconnected.
2320	2	Drains repaired, two rain-water pipes disconnected, soil-pipe connection made good.

CONVERSION OF JOINT PAIL CLOSETS.

While the scheme of conversion proceeds one not infrequently meets or reads or hears of some critics, who seem to think that the conversion of joint pail closets is far more urgent than the conversion of separate pail closets, and consequently should be undertaken first. But such critics do not take a sufficiently comprehensive view of the conditions as they exist, nor the policy by which such conditions are most likely to be improved.

The policy of the Health Committee has been that while the work of conversion is being carried out all other necessary or desirable improvements should be carried out simultaneously and thereby place each property in a satisfactory and thoroughly sanitary condition. Then as regards the conversion of separate pail closets this policy can be carried out at very much less expense to owners than in the case of joint pail closets. Consequently the work of conversion of the former goes on more rapidly as the improvements necessary or desirable are neither so extensive nor so costly to the owner, as may be seen on comparing the preceding tables with the following tables on joint conversions.

Now as regards the conversions of joint pail closets matters are very different. Anyone, who has any practical acquaintance with the general housing and sanitary conditions, where joint pail closets exist, must surely recognise that the mere conversion of such joint pail closets as they exist at present would provide no real nor permanent improvement, nor would it alter the character of the property in so far as providing separate sanitary accommodation for each house, which is so desirable in the interests of public health.

In previous annual reports it has been frequently explained that to achieve the end in view, the conversion work of joint pail closets is inseparably bound up with the work of housing improvement, such as the breaking through of back-to-back houses, the provision of yard space, and the general re-arrangement of small areas.

Further, it has to be kept in view that by reason of the insanitary and other conditions associated with joint pail closets, contributions are seldom available from the contribution fund. Having regard to these facts, it should be reasonably evident that, while the work of conversion and improvement of conditions where joint accommodation exists is very urgent, it must be equally evident that this work is difficult of achievement. Still the record of work for 1914 is very satisfactory as seen from the following tables, although the negotiations for much of this work were carried out in previous years. The improvements carried out apply to 137 houses, where joint pail accommodation existed. 21 of the houses have been converted from semi back-to-back houses into through houses, with the provision of sculleries and yards where possible, and such other improvements as to entirely alter the character of the property.

CONVERSION OF JOINT PAIL CLOSETS.

Improvement work carried out contemporarily with work of Conversion.

Reference	No. of Houses affected	No. of Pail Closets	No. of Water-closets Provided	No. of Ashbins Provided	Particulars of Scheme of Improvement
A.	4	3	2	2	Two semi-back-to-back houses broken through and provided with private yards, water-closets and ash-bins; one semi-back-to-back house together with old stable, workshop and old wooden closets taken down, site cleared and enclosed. Houses repaired and cleansed internally. Public house provided with more yard space.
B.	3	2	3	3	Three semi back-to-back houses broken through, provided with flagged common enclosed yard and with water-closet and ashbin each. Old block of closets and ashplaces removed.

Refer- ence	No. of Houses affected	No. of Pail Closets	No. of Water- closets Provided	No. of Ashbins Provided	Particulars of Scheme of Improvement
C.	7	2	7	7	Seven semi back-to-back houses broken through, provided with enlarged sculleries, and with water-closet and ashbin for each house, according to Sketch No. 3 after p. 62 in Medical Officer's Annual Report, 1911. (Part of Scheme for 20 houses).
D.	5	2	5	5	Four semi back-to-back houses broken through, each provided with enlarged scullery and with private yard, water-closet and ashbin. One through house provided with W.C. and ashbin. Passage re-sewered and surface asphalted.
E.	7	5	7	7	Two additional water-closets with seven ashbins provided. Portion of main drain reconstructed. Back door provided for yard previously without access at rear. Existing five closets converted.
F.	8	5	8	8	Six of the houses provided with separate private yards containing new water-closets and ashbins. Two houses provided with water-closets inside and ashbins in small common yard. New main drainage system provided. Block of pail closets and ashplaces demolished and yard area increased.
G.	10	4	7	6	Six private yards containing water-closets and ashbins provided. All yard drains relaid. Flag floors of two houses taken out and concrete floors substituted. Outside of three houses plastered in cement.
H.	4	2	4	4	Four semi back-to-back houses broken through, and provided each with an additional scullery and bedroom, and with water-closet and ashbin in private yard. Passage formed and sewered; all yard drains relaid.
J.	5	2	5	4	One semi back-to-back house made through by means of cellar. Common yard enclosed, reflagged and redrained. Water-closets provided inside for two houses.
K.	4	2	4	4	Existing closet and ashplace buildings removed. Obstructive stone steps and landing removed to more suitable position. Four new W.C.'s and ashbins provided.
L.	6	2	4	4	Existing joint closets altered and converted; two additional W.C.'s and four ashbins provided in small common enclosure. Main drain extended.
M.	4	2	4	2	Existing joint closets altered and converted; two additional W.C.'s provided together with two ashbins. Drainage system entirely reconstructed.
N.	6	2	3	6	Existing closets removed. Three new W.C.'s and six ashbins provided. Drainage system reconstructed. Common yard reflagged.

Refer- ence	No. of Houses affected	No. of Pail Closets	No. of Water- closets Provided	No. of Ashbins Provided	Particulars of Scheme of Improvement
O.	6	2	3	2	Ashplace building converted into W.C. building for additional closet ; three joint closets converted ; two ashbins provided ; drainage system reconstructed.
P.	9	4 and two midden- privies	9	9	Four joint closets converted ; 5 additional W.C.'s provided ; 2 midden privies abolished ; 9 ashbins provided ; common yard partly flagged ; drainage system reconstructed.
R.	4	2	2	—	Two joint closets converted ; drainage system reconstructed.
S.	2	1	2	2	One joint closet converted ; one additional water-closet erected.
T.	3	1	2	—	Joint pail closets converted ; one additional W.C. provided ; small ashplace erected.
U.	21	8	21	21	Common yard divided into 12 private yards and one small common yard ; 21 new water-closets provided in lieu of eight joint pail closets. Drainage system reconstructed ; passage formed. Inset cottage utilized for enlarging one house and providing more yard space. Passage and yards paved and flagged. Each house has now a separate water-closet and ash-bin.
V.	4	1	2	2	Two new W.C.'s erected in position for private yards when houses broken through. Old buildings removed.
W.	6	2	3	6	Three new W.C.'s erected in common yard ; yard redrained ; six ash-bins provided ; old buildings removed.
X.	3	1	2	1	Two new W.C.'s erected in convenient position ; old pail closets removed ; new ash-bin provided.
Y.	6	2	4	—	One joint pail closet removed ; two converted ; two additional W.C.'s provided ; yard re-flagged ; drains repaired and extended.

MIDDEN PRIVIES.

In the Castleton Moor Ward there still exist 70 midden privies used by the tenants of 104 houses ; 48 of these houses have separate accommodation, while 56 houses are served by privies used jointly by the occupiers of two or more houses. 22 of these privies are remote from sewers, and cannot be converted to water-closets.

The following table shows the progress of the conversion of privies in this ward only during 1914.

	No. of Privies	No. of Houses concerned
Notices standing over from 1913	15	17
Notices for 1913 issued late in December ...	13	12
Cases where owners were approached without recent legal notice	20	37
Notices issued during 1914	16	30
TOTAL ...	64	96
Converted and abolished during 1914	41	57
Requirements of notices not yet complied with	23	39

The 23 notices not yet complied with remain on the list for the following reasons :—

Waiting for Sewer	8
In hands of Contractors	6
Awaiting other alterations	2
No action by owner (Notices served late in 1914) ...	7
	<hr/> 23 <hr/>

Four years ago there existed about 250 of these privy middens in the Castleton area. 180 of these have now disappeared and the original number reduced to about 70. In other wards there still remain a few privy middens in outlying districts, and chiefly in connection with farms. These are all receiving attention with the view of conversion wherever a sewer is reasonably available. From the centre of the town, in Tip-place, there has now disappeared a group of six privy middens, which were apparently of considerable antiquity, and had been under consideration for many years. During the year the property passed into the possession of a new owner, who has been good enough to carry out a scheme of improvements which includes the breaking-through of 6 semi back-to-back houses and the provision of separate water-closets, sculleries, &c.

The improvements which have as usual accompanied the conversion of privies dealt with during the year are exemplified in the following table :—

Reference Letter	No. of Houses	No. of Closets	WORKS EXECUTED.
A.	2	2	Old privies demolished ; new water-closets provided in scheme affecting also joint pail closets ; ash-bins provided ; yard re-drained.
B.	37	20	Drainage system entirely re-laid and four manholes provided, giving access to each branch of the 20 water-closets installed. Closet buildings repaired. Dry ashplaces formed.
C.	7	6	Block of six old privies demolished ; six semi back-to-back houses provided with back doors and sculleries, and with water-closets and galvanized iron ash-bins. Common yard made for three of the houses. One existing through house provided with separate water-closet and ash-bin in suitable position. Lock-up shop given back door for access to existing water-closet.

Reference Letter	No. of Houses	No. of Closets	WORKS EXECUTED.
D.	1	1	Old privy demolished. New water-closet inside, but approached from outside. Ash-bin provided. House given a back door (previously part back-to-back and part semi back-to-back). Portion of house decorated.
E.	1	1	Old privy and outbuildings demolished. New water-closet provided inside. Drainage system reconstructed and manhole and vent. shaft provided. Galvanized iron ash-bin provided.

Summary of present Sanitary Accommodation.

The following statement gives the approximate number of each type of closet in the Borough at the end of the last financial year ending 31st March, 1914, as compared with the preceding five years.

	Year ending 31st March					
	1915	1914	1913	1912	1911	1910
Pail Closets ...	13,712	14,357	15,555	16,426	16,750	16,789
Fresh-water Closets ...	6,778	5,884	4,138	3,208	2,793	2,488
Waste-water Closets ...	2,481	2,481	2,481	2,481	2,482	2,471
Privy-midden pits ...	*61	72	104	125	137	147

* Actual number of closets 70.

HOUSE INSPECTION.

Back-to-back Houses.

During the past few years the Health Committee of this Borough have had under consideration the problem of the back-to-back house in its relation to questions of housing and its bearing on public health. In pursuance of this policy an inspection and classification of all such houses was made during August and September. This Report was placed before the Health Committee at the end of September. The following is a summary copy of the report with some recommendations :—

BOROUGH OF ROCHDALE.

SUMMARY REPORT ON BACK-TO-BACK--HOUSES.

A.—The total number of back-to-back houses and houses without back doors and through ventilation found in the Borough is 4,768. Of these, 3,277 are “ true ” back-to-back ; 370 are “ inset ” back-to-back ; and 1,121 are “ semi ” back-to-back.

Definition of Terms :—

“ True ” back-to-back houses are those which have been built actually back to each other.

“ Inset ” back-to-back houses are those which have been built between, or inset to, through houses, and which front on to the yard or place forming the back yard or back space of the through houses.

“ Semi ” back-to-back houses are those which have, as a rule two external walls, but are without back doors or suitable means of through ventilation.

B.—A complete schedule or register of all such houses has now been prepared from actual inspection, and for each house the schedule gives the following particulars :—

- I. (a) Name of street or place and number of house.
 (b) The type of house (" True " back-to-back, " Inset " or " Semi.")
 (c) The number of rooms in each house.
 (d) Rent of each house.
 (e) Number of occupants of each house.
 (f) Name and address of owner.
- II. Structural defects.
- III. Insanitary conditions.
- IV. Classification of each house according to the method in which it should be treated.
 (a) Broken through.
 (b) Attached to other premises.
 (c) Demolished.
- V. Effects on displacement of population.

C.—The following Table gives the number of houses in each Ward classified according to type, together with the suggested method of dealing with them.

	1	2	3	4	5	6	7	8
Ward	No. of True Back-to-Back Houses	No. of Inset Back-to-Back Houses	No. of Semi Back-to-Back Houses	TOTAL	No. of True Back-to-back Houses to be broken through, and Semi-Back-to-back Houses to be provided with back doors	No. of Insets and Semis to be attached to adjacent Through Houses	No. of Back-to-back Houses and Semis to be demolished	Reduced No. of separate houses after breaking through, etc. (numbers in column 4 represent original numbers)
Wardleworth West	497	30	164	691	471	42	178	272
Wardleworth South	308	36	108	452	263	38	151	151
Wardleworth East ...	338	59	73	470	314	71	83	162
Spotland West ...	382	44	140	566	332	60	173	203
Spotland East ...	290	25	134	449	233	45	164	114
Wuerdle ...	348	19	107	474	296	22	156	179
Castleton North ...	225	39	79	343	148	32	163	74
Castleton East ...	318	53	72	443	216	50	177	119
Castleton South ...	335	39	136	510	266	47	197	150
Castleton West ...	197	9	71	277	223	9	45	145
Castleton Moor ...	39	17	37	93	47	17	29	37
WHOLE BOROUGH ...	3277	370	1121	4768	2809	433	1516	1606

N.B.—The totals of columns 5, 6 and 7, exclude 10 of the total 4,768 houses which it is considered advisable not to interfere with except as regards sanitary accommodation. These are principally corner houses.

D.—The standard adopted for houses which should be demolished has been considered under the following heads. But in order to secure uniformity in application of this standard, it may be added that, although the whole staff were more or less engaged on this work, the determination of demolition in each case was considered by one official only working in conjunction with the Medical Officer of Health.

- (1) Permanent dampness.
- (2) Obstruction of light and air.
- (3) Means of internal ventilation.
- (4) Height of ceilings of rooms.
- (5) Internal and external disrepair.
- (6) Lack of space for sanitary improvement.
- (7) Interference with scheme of improvement to other houses belonging to same owner.

E.—Schemes of Improvement.

Generally speaking the one-roomed and two-roomed back-to-back houses are older and in the worst condition, and they constitute the greater number of the 1516 houses which are suggested for demolition. On the other hand the inset cottages, the four-roomed back-to-back houses and the semi back-to-back houses are generally in fair condition. Hence :—

- (a) The inset cottages lend themselves to breaking through and adding on to adjacent houses at convenient future dates.
- (b) The four-roomed back-to-back should be converted into through houses, and they constitute the greater number of the 2,809 houses suggested for this purpose.
- (c) The semi-back-to-back houses should be converted into through houses, and other necessary sanitary improvements carried out as indicated in the summary report sheet. This will include provision of adequate house drainage, conversion of pail closets which here are usually joint, provision as far as possible of private or common yards, also necessary internal and external repairs to property. It is calculated that about 1,000 of the 1,121 "Semis" could be dealt with in this manner, and made in most cases quite good habitable houses. But it has to be recognised that even this part is a big undertaking and will require some time. Still in its execution there is no displacement of population.

F.—As far as reasonably attainable the general scheme of improvement should secure for each house :—

- (1) The provision of separate sanitary accommodation for each resulting through house.
- (2) The provision of private yard and separate private drainage for each house ; or
- (3) Where space does not permit of the provision of a good sized private yard, then the enclosure and repaving of a common yard with separate drainage for each house.
- (4) The making and paving of through back passages where possible.
- (5) The saving of as much yard space as possible by the provision of water-closets inside whenever possible and of inbuilt water-closets approached from outside.
- (6) The provision of galvanized iron bins for ashes.

The amount of work thus involved as per summary sheet :—

No. of houses to be provided with separate sanitary accommodation	1905
No. of houses which could have private yards	1335
No. of houses whose common yards should be enclosed and repaved, &c	462
No. of houses requiring additional repairs	57
No. of through houses to be removed for space for yards, &c. ...	110
No. of disused buildings to be removed for similar purposes... ..	51

It should be noted that as regards sanitary accommodation, the work of conversion of any pail closets belonging to back-to-back houses has so far been carried out with a view to breaking through, and full provision has been made for the improvements now suggested. In some cases the breaking through has been carried out at the same time as the conversion. No conversion work has been allowed at premises now put down for demolition.

As indicated in the summary sheet as this scheme progresses 110 through houses, mostly in poor condition, as well as 51 disused buildings of various kinds will require to be demolished.

G.—Population.

The total number of persons occupying the 4,768 houses is found to be at present 14,219, or an average of about 3 persons per house, and the total number of persons who would be dispossessed by reason of breaking through, demolishing, or otherwise treating the back-to-back houses as suggested, would eventually amount to 8,885. The latter figure is calculated on the assumption that in every case the family now living in that house, of any pair of back-to-back houses, which faces the street, will continue to occupy the resulting through house, while the family in the “ rear ” house or that facing the common yard or court-yard will be altogether dispossessed ; and also on the further assumption that no family now occupying an “ Inset ” cottage will, after alteration, occupy the through house to which the “ Inset ” may be attached.

The following Table gives figures of occupation for each Ward :—

Ward	No. of houses of types considered	Total No. of Occupants	Average No of persons per house	No. of persons who will become dispossessed
Wardleworth West ...	691	2043	2.96	999
Wardleworth East ...	470	1425	3.03	918
Wardleworth South ...	452	1351	3.00	896
Spotland West ...	566	1679	2.96	1049
Spotland East ...	449	1310	2.92	905
Wuerdle ...	474	1482	3.13	909
Castleton North ...	343	1038	3.02	734
Castleton East ...	443	1343	3.03	888
Castleton South ...	510	1460	2.86	1012
Castleton West ...	277	818	2.95	430
Castleton Moor ...	93	270	3.00	145
TOTAL FOR BOROUGH	4768	14219	3.00	8885

Rent.

The prevailing range of rents according to the number of rooms in each house is as follows :—

1 Room	...	...	...	...	...	...	...	1/6 to 1/9
2 Rooms	...	...	...	...	...	...	...	2/6 to 3/-
3 „	...	...	...	...	...	...	...	3/- to 4/-
4 „	...	...	...	...	...	...	...	3/3 to 4/6

The present aspect of the Housing Problem is discussed in some detail in the last Health Report, pp. 74—79 ; and in the previous Annual Reports and Housing Report.

A. G. ANDERSON,

Medical Officer of Health.

PUBLIC HEALTH OFFICE,
TOWN HALL,
29th Sept., 1914.

SUMMARY OF REPORT ON BACK-TO-BACK AND SIMILAR HOUSES.

WARD	CLASS OF HOUSE			Total	No. of Rooms					No. of Occupants				PRINCIPAL INSANITARY CONDITIONS						PROPOSED METHOD OF DEALING WITH HOUSES						Other Premises to be demolished to carry out Schemes		No. of Persons who will be Dispossessed			REMARKS	
														Defective Sanitary Accommodation	Defective Drainage	General Disrepair	Defective Yard Paving	Defective Ventilation	Obstructive Buildings	(a) Break through True Back-to-back	(b) Provide Back Doors to Semi-Back-to-backs	Break through to existing Through Houses (chiefly Inset Cottages)	Provide Private Yards	Provide suitable Sanitary Accommodation	Repace Common Yard							Repair Houses in Addition	Demolition	No Action
	Back-to-back	Semi Back-to-back	Inset Back-to-back	1	2	3	4	5 and over	Over 10 Years	Under 10 Years	Total																					
Wardleworth West ...	497	161	30	691	8	475	110	98	...	1481	562	2043	648	319	205	299	691	35	471 to 272	42	182	288	51	20	178	...	9	16*	671	328	999	* Disused premises
Wardleworth South ...	308	108	36	452	1	303	39	109	...	1032	319	1351	433	193	176	238	452	7	263 to 151	38	91	189	77	15	151	...	5	...	697	199	896	
Wardleworth East ...	338	73	59	470	...	327	53	88	2	1051	374	1425	443	218	83	312	470	...	314 to 162	71	157	213	86	...	83	2	5	2*	676	242	918	* Sculleries
Spotland West ...	382	140	44	566	47	249	123	145	2	1272	407	1679	565	257	165	290	566	4	332 to 203	60	186	243	61	8	173	1	20	2*	819	230	1019	* Disused
Spotland East ...	290	134	25	449	1	236	84	128	...	992	318	1310	445	275	163	266	449	21	233 to 114	45	97	126	34	5	164	7	13	7*	680	225	905	* Part only of 2
Wuerdle ...	348	107	19	474	7	217	64	182	4	1100	382	1482	468	127	157	156	474	...	296 to 179	22	135	195	22	7	156	...	20	1*	700	209	909	* Disused
Castleton North ...	225	79	39	343	1	209	48	84	1	791	247	1038	349	161	170	171	343	4	148 to 74	32	58	68	10	...	163	...	7	3*	563	171	734	* Disused
Castleton East ...	318	72	53	443	...	246	30	161	6	939	404	1343	440	186	180	231	443	1	216 to 119	50	132	173	47	...	177	...	11	12*	665	223	888	* Disused
Castleton South ...	335	136	39	510	3	341	37	114	15	1099	361	1460	518	218	207	215	510	8	266 to 150	47	152	197	35	2	197	...	15	5*	757	255	1012	* 4 Disused
Castleton West ...	197	71	9	277	2	126	23	120	6	618	200	818	277	46	25	87	277	...	223 to 145	9	100	154	39	...	45	...	2	3*	301	129	430	* Disused
Castleton Moor ...	39	37	17	93	...	29	8	54	2	193	77	270	93	29	29	16	93	...	47 to 37	17	45	59	...	...	29	...	3	...	104	41	145	
Whole Borough ...	3277	1121	370	4768	70	2758	619	1283	38	10568	3651	14219	4679	2059	1560	2281	4768	80	2809 to 1606	433	1335	1905	462	57	1516	10	110	51	6633	2252	8885	

HOUSING AND TOWN PLANNING ACT, 1909.

Since the passing of the above Act, it has been found expedient to work under Section 17, when dealing with houses which are in a very bad condition ; and which at the same time, by reason of their general character and structural disposition, are incapable of undergoing such alterations and improvements, as to be considered reasonably fit for human habitation.

On the other hand, by reference to the tables on conversion work it will be seen that a great deal of work of general improvement has been carried out simultaneously with the conversion work, without any notices being served under provisions contained in Section 15 of the above Act. As, however, the Local Government Board require, under the above Act, that yearly inspections of dwellings be made, and certain records kept, the following specimen card has been adopted :—

[Specimen Form used for Inspection of Dwellings under the Housing and Town Planning Act, 1909.]

BOROUGH OF ROCHDALE—HOUSE INSPECTION.

Street & No.	Ward	Date insp.	Ref. No.
Name of occupier		Inspector	
Name & address of owner		If An. rent under £26	
If let or re-let after 3rd Dec. 1909	Date of erection (if known)	Rent per week	
Structure of walls	Roof		
Water supply	Closet accomn.		
Drainage			
Paving, Drainage & Sanitary condition of any yard or Onthouse :—			
Dampness (Outside evidence)			
Arrangements for deposit of refuse, ashes, etc.			
M. F. Total			
No. of Inmates	No. of Families	Lodgers	Overcrowding
Adult			
Children under 10 years			

[REVERSE SIDE.]

LIGHT		FREE CIRCULATION OF AIR		DAMPNESS & CLEANLINESS	
Detached	Semi-detached	One of a Row	Through vent.	B to B	
				Bk. to earth	
Distance at rear from nearest detached building .			feet	Sinks	

	Floor Area				Cubic feet	Windows—Type—Size			Fireplace if open	Evidence of dampness	Cleanliness
						To open	Not to open	Sq. feet			
1		×	×	high							
2		×	×	„							
3		×	×	„							
4		×	×	„							
5		×	×	„							
6		×	×	„							

Any other defects which may tend to render house dangerous or injurious to health.

Date	Epit. of Repts or Letters	Date	Epit. of Repts or Letters

Cards similar to the above have been filled up for 183 dwellings, and are summarised in the following tables. These dwellings are nearly all of the semi-back-to-back house type as described in the Report on back-to-back houses. No notices have as yet been served with regard to these 183 houses.

**IMPROVEMENT OR DEMOLITION OF INSANITARY DWELLINGS UNDER THE
HOUSING AND TOWN PLANNING ACT.**

Section 17.

Altogether 124 inspections of dwellings have been made for the purposes of this section, 40 have been represented by the Medical Officer as unfit for habitation and 25 Closing Orders have been made. The following Table shews these particulars in the form required by the Local Government Board.

The following Table gives some particulars with regard to the dwellings condemned :—

Houses Condemned under 1909 Act. Section 17.

Situation of Premises	Date of Closing Order	Date of Demolition Order	Subsequent History and Notes
40, Toad Lane ...	July 1914	...	} Dwellings unoccupied. Demolition orders postponed on application of owner.
42, " ...	"	...	
44, " ...	"	...	
46, " ...	"	...	
48, " ...	"	...	
50, " ...	"	...	
1 in No. 2 Court, Toad Lane ...	"	...	
2, " ...	"	...	
3, " ...	"	...	
6, " ...	"	...	
55, Toad Lane ...	"	...	} Demolition orders postponed during consideration of owner's scheme of improvement of two houses and comprising the demolition of other two dwellings unoccupied.
1, College Place ...	"	...	
2, " ...	"	...	
3, " ...	"	...	
7, Crawford Street...	Oct. 1914	...	} Demolition orders now being arranged for. Dwellings unoccupied.
9, " ...	"	...	
1 in No. 1 Court Agnes Street ...	"	...	
3 " ...	...	...
1 in No. 3 Court, Penn Street ...	Jan. 1915	...	} Certified by M.O.H. in November, 1914. No action yet taken by owners.
2 " ...	"	...	
3 " ...	"	...	
4 " ...	"	...	
5 " ...	"	...	
7, New Buildings Place ...	"	...	
9, " ...	"	...	

The following Tables give the results of the inspection with the principal sanitary defects :—

TABLE SHEWING WORK OF INSPECTION OF DWELLING HOUSES UNDER SECTION 17 OF THE HOUSING AND TOWN PLANNING ACT, 1909.

No. of Houses inspected under and for the purposes of Section 17 of the Act of 1909	No. of Dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	No. of Representations made to the local authority with a view to the making of Closing Orders with dates	No. of Closing Orders made with dates of Orders	No. of Dwelling-houses the defects in which were remedied without the making of Closing Orders	No. of Dwelling-houses the defects in which were arranged to be remedied without the making of Closing Orders	No. of Dwelling-houses which after the making of Closing Orders were put into a fit state for human habitation	General Character of Defects found to exist
124	40	29th May, 1914 4th Aug., 1914 7th Nov., 1914	14th July, 1914 4th Oct., 1914 7th Jan., 1915	...	15	...	Want of ventilation Insufficient sanitary accommodation, &c. (See also list)
124	40	" 40	25	...	15	...	

TABLE SHEWING INSPECTIONS OF SEMI BACK-TO-BACK HOUSES.

STREET OR PLACE	No. of Houses	RANGE OF RENTS	WANT OF VENTILATION	WANT OF LIGHT	DAMPNESS of (a) Walls (b) Floors (c) Ceilings	DEFECTIVE FITTINGS (a) Windows (b) Doors (c) Fire ranges (d) Cupboards (e) Stairs (f) Flag floors (g) Boarded floors	OVERCROWDING	INSUFFICIENT AND DEFECTIVE SANITARY ACCOMMODATION	(a) DEFECTIVE SURFACE OF YARD (b) No YARDS	DEFECTIVE DRAINAGE or DRAIN FITTINGS	DEFECTIVE BRICKWORK AND POINTING OF BRICKWORK	DEFECTIVE ROOFS	OTHER DEFECTS (a) Dirty Houses (b) Def Plastering (c) Def Eavesdrough or R.W.P.
Royds Place	5	3/-, 3/1	5	5	...	...	...	5	5 (a)	5 Slopstone pipes untrapped	...	...	(a) ... (b) 1 (c) ...
Dorset Street	3	4/-, 4/6	3	...	3 (a)	...	...	3	3 (a)	1 do.	...	...	1
Platting Lane	4	3/6	4	4	2 (a)	1 (f)	...	4	4 (a)	do.	...	...	...
Fletcher Street	2	3/3	2	2	1 (a)	...	...	2	2 (a)	do.	...	...	1
Hurst Street	2	3/6	2	2	1 (a) 1 (c)	...	...	2	2 (a)	do.	...	1	...
Oldham Road	1	3/3	1	...	...	...	...	1	1 (a)	...	...	...	...
Hurst Street	4	2/9, 3/-	4	4	4 (a) 1 (c)	...	...	4	4 (a)	do.	...	1	...
Well Place	3	3/2	3	3	2 (a)	...	...	3	3 (a)	do.	3 pointing	...	...
Woodbine Place	2	3/3	2	2	2 (a)	...	...	2	2 (a)	do.	do.	1	...
Larkfield Place	2	2/8	2	2	2 (a) 2 (c)	2 (f) 1 (g)	...	2	2 (a)	...	do.	2	...
Milk Street	2	3/6	2	2	1 (a)	2 (f)	...	2	2 (a)	...	do.	2	...
Temple Street	9	3/9	9	9	9 (a) 1 (b)	2 (g) 2 (f)	...	9	9 (a)	9 Slopstone pipes untrapped	do.	...	9
Coldwall Place	1	3/7	...	...	...	...	...	1	1 (a)	...	...	...	...
Cinnamon Street	3	3/6, 3/9	3	3	3 (a)	...	...	3	3 (a)	3 Slopstone pipes untrapped	...	...	...
Albert Street	2	2/3, 2/9	2	2	2 (a) 1 (b)	...	...	2	2 (a)	do.	...	...	1
Sycamore Place	3	4/1, 4/3	...	...	1 (a)	1 (d)	...	3	3 (a)	do.	...	...	...
Walker's Place	2	4/5	...	...	1 (a)	...	...	2	2 (a)	...	...	...	...
Sir Robert Peel Street	8	3/6, 4/3	...	...	8 (a) 3 (c)	...	...	8	8 (a)	...	8 pointing	...	3
Willow Place	5	4/4	5	...	2 (a)	...	...	5	5 (a)	do.	...	...	...
Union Street	1	3/6	1	1	1 (a) 1 (b)	1 (f)	...	1	1 (a)	do.	...	...	...
Whitworth Road	1	3/9	1	1	1 (a)	1 (g)	...	1	1 (a)	...	...	...	...
Rope Street	1	3/6	1	1	1 (a)	1 (f)	...	1	1 (a)	...	1 pointing	...	1
Turner Street	3	4/-	...	...	3 (a)	...	...	3	3 (a)	...	...	...	...
Grindrod Street	2	3/7	...	...	1 (a)	1 (g)	...	2	2 (a)	do.	...	...	...
Union Street	2	3/6, 4/-	1	1	...	1 (c) 1 (f)	...	2	2 (a)	do.	...	...	...
Phoenix Square	3	3/1	3	3	3 (a)	2 (f) 1 (g)	...	3	3 (a)	...	...	...	...
Duke Street	2	2/6	2	2	2 (a)	(1 e)	...	2	2 (a)	...	3 pointing	...	...
Cronkeshaw Road	2	3/1, 3/7	2	2	1 (a)	1 (g)	...	2	2 (a)	...	do.	...	...
Moorfield Place	9	2/6, 3/8	9	9	7 (a)	1 (e) 1 (f) 2 (g)	...	9	9 (a)	5 Slopstone pipes untrapped	...	...	5
Abbey Street	10	3/6, 3/7	10	10	2 (a)	...	...	10	10 (a)	3 do.	...	...	...
Driver's Place	4	3/2	4	4	4 (a)	...	...	4	4 (a)	...	...	...	...
New Timbings Place	1	...	1	1	1 (a)	1 (f) 1 (g)	...	1	1 (a)	...	...	...	1

[illegible]

TABLE SHEWING INSPECTIONS OF BACK-TO-BACK HOUSES.

STREET OR PLACE	No of Houses	Range of Rents	Want of Ventilation	Want of Light	Dampness of (a) Walls (b) Floor (c) Ceilings	Defective Fittings (a) Windows (b) Doors (c) Fire ranges (d) Cupboards (e) Stairs (f) Flag floors (g) Boarded floors (h) Slopstones— Defective or Badly Set	Overcrowding	Sanitary Accommodation— Insufficient and Defective	Yards, Etc.— (a) Defective Surface (b) No Yards	Brickwork— (a) Defective (b) Pointing	Roofs— Defective	Other Defects		
												Dirty Houses	Defective Plastering	Defective— (a) Heavestrough (b) R. W. P.
Vineent Street	2	3/-	2	2	2 (a) 1 (a) 1 (c)	2 (c) 2 (e) 2 (f) 2 (g) 2 (h) 1 (a) 1 (b) 1 (e) 1 (f) 1 (g) 1 (h)	...	2	2 (a)	1 (a) 1 (b)	...	1	2	1 (b)
League Street	1	3/-	1	1	1 (a)	1 (d) 1 (e) 1 (f) 1 (h)	...	1	1 (a)	1 (a)	1	1	1	...
Bright Street	1	2/10	1	1	2 (a) 2 (b) 2 (c)	2 (a) 2 (e) 2 (g) 2 (h)	...	1	1 (a)	2 (a)	...	...	...	1 (b)
Crawford Street	2	4/-	2	2	2 (a) 1 (c)	1 (a) 1 (c) 1 (e) 1 (f) 2 (g) 2 (h)	...	2	2 (a)	2 (a)	2	2	2	2 (b)
No. 1 Court Agnes-st.	2	3/9	2	2	2 (a) 2 (c)	2 (e) 2 (f) 1 (g) 2 (h)	...	2	2 (a)	2 (a)	1	1	2	1 (b)
Mere Lane, Further Side	2	3/6	2	2	2 (a) 2 (c)	2 (e) 2 (f) 2 (g) 1 (a) 1 (h)	...	2	2 (a)	2 (a)	2	...	2	1 (a) 1 b
Back Drake Street	2	2/-—3/-	2	2	3 (a)	1 (a) 1 (c) 3 (f) 1 (e) 1 (h)	...	2	2 (a)	...	2	2	2	1 a 1 b
Holland Street	3	2/4—4/3	3	3	5 (a) 3 (b) 5 (c)	1 (a) 1 (c) 2 (e) 5 (f) 2 (g)	...	3	3 (a)	3 (a)	...	1	3	1 (b)
Lister Place	7	3/-—3/9	6	6	2 (a) 1 (b) 1 (c)	2 (c) 1 (e) 2 (f) 2 (g)	...	7	7 (a)	...	5	2	3	...
Jermyn Street	2	3/-	2	2	5 (a) 7 (c)	2 (a) 1 (e) 2 (f) 3 (g) 2 (h)	...	2	2 (a)	...	1	1	1	...
Victoria Place	13	2/9—3/6	13	13	3 (a) 6 (c)	2 (a) 5 (e) 6 (f) 3 (g) 1 (d)	...	13	13 (a)	1 (a)	7	9	4	...
Victoria Yard	7	2/6—3/-	7	7	2 (a) 3 (c)	3 (e) 4 (f)	...	6	6 (a)	4 (b)	6	5	5	...
Regent Street	4	3/- 3/2	4	4	1 (a) 2 (b) 2 (c)	...	...	4	4 (a)	4 (b)	3	2	4	...
Elliot Street	5	3/7—4/3	5	5	2 (a) 1 (c)	2 (c) 2 (f)	...	5	5 (a)	...	2	...	...	1 (b)
Blossom Place	2	1/9	2	2	2 (a) 2 (b) 1 (c)	2 (c) 2 (f)	...	2	2 (a)	...	1	1	2	...
Mayfield Street	2	2/6—2/9	2	2	4 (a) 2 (c)	1 (a) 1 (f) 1 (g)	...	2	2 (a)	1 (a)	2	...	2	2 (b)
Tip Place ...	4	3/-	4	4	1 (a)	1 (e) 1 (f) 1 (g)	...	4	4 (a)	1 (a)	...	...	1	...
Harp Place...	1	2/-	1	1	1 (a) 1 (c)	1 (a)	...	1	1 (a)	1 (a)	1	...	1	...
New Buildings Place	1	3/-	1	1	...	...	...	1	1 (a)	1 (b)	...	...	...	...
Penn Street	1	3/6	1	1	...	...	...	1	1 (a)	...	...	...	...	...
Kossuth Street	1	2/6	1	1	...	...	...	1	1 (a)	...	...	...	...	...
Turner Street	1	4/-	1	1	1 (a)	1 (a)	...	1	1 (a)	...	...	...	1	...
No. 1 Court Duke Street	1	3/6	1	1	...	...	...	1	1 (a)	...	...	1	...	...
Moorfield Place	1	3/2	1	1	6 (a) 6 (b) 6 (c)	6 (a) 6 (c) 6 (e) 6 (f)	...	1	6 (a)	...	6	...	...	...
Ogden-st. & (No. 2 Court)	6	2/6	6	6	...	...	1	6	6 (a)	...	...	...	...	...
Peel Street	1	3/6	1	1	2 (a)	...	...	1	1 (a)	...	...	...	2	...
Fletcher Street	2	3/3	2	2	...	...	1	2	2 (a)	...	...	...	...	...
Wellfield Street	1	4/-	1	1	...	...	...	1	1 (a)	...	...	...	...	...
Wareing's Yard	1	4/3	1	1	1 (a)	...	...	1	1 (a)	...	...	...	...	...
Well Street...	1	4/-	1	1	3 (a)	...	...	1	1 (a)	...	...	...	...	...
Larkfield Place	3	2/10	3	3	1 (a)	1 (a) 3 (f)	...	3	3 (a)	3 (a)	3	...	3	...
Haigh Street	1	3/6	1	1	4 (a) 2 (b) 2 (c)	4 (e) 2 (b)	...	1	1 (a)	...	...	1	...	4
Vine Place ...	4	2/6—2/9	4	4	8 (a) 8 (b) 8 (c)	8 (a) (b) (c) (e) (f) (g)	...	4	4 (b)	8 (a) 8 (b)	8	3	8	8
Toad Lane	8	2/-—3/-	8	8	2 (a) 2 (b) 2 (c)	2 (a) (b) (c) (d) (e) (f) (g)	...	8	2 (a) 2 (b)	2 (a) 2 (b)	2	2	2	2
"	2 thro	7/-	...	...	2 (a) 2 (b) 2 (c)	2 (a) (b) (c) (d) (e) (f)	...	2	2 (a) 2 (b)	2 (a) 2 (b)	2	2	2	2
College Place	2	2/9	2	2	...	...	...	2	2 (a) 2 (b)	2 (a) 2 (b)	2	2	2	2

EDUCATION COMMITTEE.

REPORT

ON

**The Medical Inspection of
School Children.**

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APPENDIX B.—Return of Children Treated for Defects 26

Population of Rochdale in 1914	94,320
Number of Scholars on Register during 1914	13,898
Average Attendance (including half-timers) 1914	12,115
Number of Schools—Council	18
Non-provided	12
	<hr/>
	30
Number of Departments—Council	31
Non-provided	20
	<hr/>
	51
Number of School Buildings—Council	18
Non-provided	15
	<hr/>
	33

Introductory.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to present to you the Seventh Annual Report on the work of School Medical Inspection as carried out in Rochdale, in terms of the Education Administrative Provisions Act, 1907, with the various Orders and Memoranda founded thereon, and issued from time to time by the Board of Education.

The preparation of this Report has been carried out by Dr. Fulton, who entered on office here on the 1st April, 1914 ; and it is satisfactory to be able to state that in carrying out all the duties pertaining to the work of Medical Inspection he has exhibited a considerable degree of earnest thought and enthusiasm in his work.

In the prefaces to the preceding Reports we have dealt at some length with what should be considered the underlying principle of all true education—The development of a sound mind in a sound body.

The degree to which this ideal is likely to be achieved by our elaborate and ever-changing system of education is a matter around which there is much discussion ; but from the medical standpoint, and in so far as the development of a sound body is concerned, each School Report gives scope for serious reflection.

Not only are many young lives lost before school age is reached, but many who do reach the school register are found to be so debilitated, stunted or dwarfed in body that their education becomes a difficulty to the teacher and a burden to themselves. Such children enter on life with a heavy handicap, while their depreciation in economic value is not only a loss, but may become a burden to the State. What are the causes ? It must be within the knowledge of every Educational and Public Health Authority that the life history of every child is largely moulded by the action and interaction of its hereditary and environmental conditions and influences ; and further, that these conditions, good, bad or indifferent, slowly but surely determine the character and destiny of the race. Hence, if the ideal of all true education is to be pursued it is surely incumbent that all authorities concerned should give far more consideration than heretofore to the primary underlying conditions or causes which operate so detrimentally on child life, the effects of which are at present roughly indicated in this and previous School Reports. Having due regard to the above proposition, it may appear to many that the time has come when the economic conditions and exigencies of the nation demand a very much more thorough organisation and co-ordination of the medical and educational forces than has existed in the past. Systems that have grown up by patchwork and have been the playthings of conflicting authorities must give place to more economic, efficient and effective organisation which has a practical and definite objective. That this will come there can be no manner of doubt, when England becomes convinced by experience that there is no wealth but life, and that the progress of any nation is only limited by the virility of its race ; and further, when the rude, almost unthinkable, lesson of to-day is seriously learned, that still no nation is safe whose sons are unable to defend themselves by their own prowess and by the force and science of arms.

Bearing on the above argument, an experiment on a large scale was provided in this Borough during the last four months of the year.

Due to the sudden outbreak of war, and as many thought impending destitution, all necessitous children were provided with free breakfasts and dinners, according to the menu described on page 22 of this report. The food was plain and cheap, but when properly cooked and regularly served, the most nutritious and suitable for growing children. What was the immediate effect as noted by Teachers and all concerned ? The pale and anæmic child, the child with hacking winter cough, the debilitated and lean and half-starved looking child—all alike began to revive with the flush and vigour of youth.

In our great industrial centres when children starve in body and mind, it is not usually through want of money nor the scarcity of foodstuffs, but rather through the want of proper foodstuffs properly cooked, and although such foodstuffs are the cheapest, yet we had to exclude porridge and milk from our menu, just for the same reason that we have to exclude this cheap and most valuable bone and brain-forming foodstuff from our menu at the Fever Hospital.

Medical inspection and the school clinics are accomplishing invaluable work in dealing with the physical defects and minor ailments of childhood as they are discovered. Of this ample evidence is provided by a perusal of the report. But surely the intelligence of this nation will not remain satisfied to go on treating physical defects, disabilities and various ailments as they are discovered, while the causes and conditions which produce them remain. Surely on all Educational and Public Health Authorities there devolves the more statesmanlike duty, to enquire and carry out such careful and scientific investigations as will conclusively determine the underlying root and generic causes; and then, by a continuation of the same statesmanlike, sound and logical policy, it may be found possible in many cases to prevent the disease by removing or modifying the cause. As a simple example: if of wealth and food there is plenty in the land, but yet so many children suffer from diseases of nutrition, this is surely an interesting subject for enquiry. Every effect must have an efficient cause, for nothing comes by chance. Discover the cause, deal with it and endeavour to prevent or moderate the effect in the direction which is most desirable. For who will deny that many of the physical defects, diseases and ailments of children are preventible; and therefore ought to be prevented, if our educational and medical machinery is to work efficiently and effectively for the good of the child and the welfare of the race.

There are amongst others a few features in this report which specially deserve comment.

Firstly, evidence is not wanting that parents in many cases are exhibiting more interest in the work of medical inspection, and carry out instructions given more readily; and further, that the cleanliness of children is on the whole improving.

Secondly, the continual extension of the system of school clinics and the provision now established for dental work. A brief but interesting report is incorporated by the School Dental Officer: the perusal of which will be sufficient to convince the most sceptical that this work can no longer be left undone.

Thirdly: With the provision of the Sanatorium at Springfield it is earnestly hoped that the Education Committee will lose no time in establishing an open-air school. We consider the open-air school an integral part of the scheme for the prevention of tuberculosis in its many forms. There are many children in Rochdale to-day, who, would probably benefit so much in health by a course of open-air education and treatment as to prevent them falling victims to consumption at some future day. This is undoubtedly one of the most economic aspects of the principle of prevention. It is better to prevent consumption before it can be diagnosed.

Fourthly: The passing of the Mental Deficiency Act has placed the responsibility on Local Education Committees for the provision of suitable centres for the education of mentally defective children. There are at present from 40 to 50 mentally defective children in the Borough for whom such provision has to be made. The whole problem of mentally defectives requires very careful handling. The provision of suitable educational centres and adequate supervision during childhood is only one phase in the life history of these children. There is not infrequently a tendency, when clear thinking is obscured by unreasoned sentiment, to be too thoughtful of the individual and too careless of the race.

A. Anderson

M.D., D.Sc., M.A., D.P.H.

SECTION I.

The general hygienic conditions of the school buildings.

During the year 1914, the increased accommodation provided by the Education Committee and School Managers has not been so great as in previous years. The year has seen the completion, however, of works for which provision has already been made.

Improvements carried out.

Castleton Council School	...	...	The building of the new infant department has now been completed, and at the same time electric light has been installed in the mixed department.
St. Alban's C.E. School	...	...	Radiators have been installed throughout the school and the flooring improved.
Meanwood Council School	...	...	The surfaces of the playgrounds have been re-covered—that for the “boys” being completed and those for the girls are nearing completion.
St. Mary's C.E. School (Wardleworth)			The gallery formerly in the main room of the infant department has been removed.
St. Martin's C.E. School	...	...	This school has been closed.

Painting and re-decorating has been carried out at the following schools :—

INTERIORS RE-DECORATED—

Castleton Council (Mixed Dept.)	S. Edward's C.E.
Derby-street Council	St. Peter's C.E.
Lowerplace Council	All Saints' C.E.

EXTERIOR WOODWORK RE-PAINTED—

Baillie-street Council School	Greenbank Council School
Brimrod Council School	Halifax-road Council School
Derby-street School	Meanwood Council School

Improvements arranged for.

Lowerplace Council School (New School). Site approved. Plans passed. Ready to commence building.

Parish Church Infants (New Infants' School) Plans approved. Unable to proceed for lack of funds.

School Desks.

The unsuitability of the combined school desk found in the greater number of Rochdale schools is again to be specially mentioned. The provision of the dual desk would not only tend to prevent faulty positions, with consequent eyestrain, but enables scholars to leave their classes more quietly and with less disturbance to their neighbours.

SECTION II.

General survey of the scope of the work.

1.—Visits to Schools.

108 visits have been made to the 30 schools in the Borough by the Medical Inspector for the purpose of routine examination. To this number has to be added 17 special visits in connection with outbreaks of infectious disease, and also 30 in the supervision of the feeding of necessitous children—this making a total of 155 visits paid during the year by the Medical Inspector.

2.—The Children examined were selected as follows :—

A.—For Medical Inspection in School.

(a) Routine Cases.—Children admitted to school for the first time since the 1913 medical inspection, and those children who had reached the age of 12 years during the same period. These two groups of children are commonly known as "Entrants" and "Leavers."

(b) Special Cases.—Any other children in the school not included in the above two groups, who, in the opinion of the Head Teacher, required medical examination.

(c) Re-examination of children found defective at the previous inspection, to ascertain whether treatment had been obtained, and if so, its effect.

B.—For Medical Inspection, at the School Clinic.

(a) Children who were found to require further examination than could be carried out in school.

(b) Children referred for examination as to their fitness for school by either the teachers or School Attendance Officers, owing to absence through sickness or physical defects.

(c) Children treated at the School Clinic.

(d) Children referred to Dr. Harry for defective vision.

C.—For Inspection by School Nurses with regard to Cleanliness.

(a) All girls in attendance at Rochdale Schools.

(b) All boys presented by the teachers.

D.—For Dental Inspection in school by the Dental Officer.

(a) Routine Cases.—All children who are of the age of six and seven whether in the mixed or infants departments.

(b) Special Cases.—Any children not already included in the above groups, who may or commonly do suffer from toothache, gumboils, swollen face, &c., and are in the opinion of the Head Teacher, urgent cases for examination.

3.—The Number of Children inspected in 1914.

A.—Seen at School.

During the year 4,489 children were examined in school. The relative numbers of Routine Cases, Special Cases and Re-examinations are shown in the following table, which also brings out the age and sex distribution of the Routine Cases.

TABLE I.

Number of Children seen at School for Medical Inspection.

AGE	ROUTINE CASES									Specials	Re-examined	Totals
	3	4	5	6	7	8	12	13	Totals			
BOYS ...	113	279	389	93	23	...	691	52	1,640	384	211	2,235
GIRLS ...	144	275	373	123	20	...	697	56	1,688	389	177	2,254
TOTAL ...	257	554	762	216	43	...	1388	108	3,328	773	351	4,489

B.—Seen at the School Clinics.

2,136 children in all were examined at the School Clinics during 1914, as against 1,890 in the previous year. 868 at the Examination Clinic, 871 at the Treatment Clinic, and 397 at the Eye Clinic. The 868 children made 2,025 visits to the Examination Clinic and consisted in 693 with regard to their fit or unfitness to attend school and 52 for further examination than possibly could be carried out in their respective schools.

C.—Seen by School Nurses.

5,966 children were seen at school by the Nurses with regard to cleanliness. The 30 schools in the Borough were all visited three times, and therefore, with the addition of very neglected cases which were specially inspected, the Nurses have credited to them 17,900 inspections.

D.—Seen by Dental Officer.

347 children were examined at five schools by the Dental Officer—these all being children of 6 and 7 years of age. When advisable their parents were informed of any necessary treatment, which was then offered free.

4.—The Number of Inspections made during 1914.

35,814 inspections were made by the whole staff during 1914. With exception of visits of Nurses to children's homes and special visits to schools for the control of infectious disease, &c., this number was made up as follows :—

Number of Inspections	by Medical Officer at School...	...	...	...	4,489
"	" Medical Officer at Examination Clinic	...	...	...	2,025
"	" Medical Officer at Treatment Clinic	...	...	...	10,656
"	" by Specialist at Eye Clinic	...	...	...	397
"	" by Dental Officer at Schools	...	...	...	347
"	" by School Nurses as to Cleanliness	...	...	...	17,900
Total Number of Inspections					35,814

5.—The relation of Medical Inspection to Parents.

The sympathetic feeling which was gradually replacing the antagonistic continues to be shown by parents. The objectors to inspection of their children are now rather exceptions than otherwise, thereby enabling the procedure to run smoother as time goes on. The number of parents present at inspections still continues to be small, owing to the custom, no doubt, for every able-bodied person to go to work and leave the children to look after themselves. This custom has very unfortunate effects on some children, who having suddenly become ill in school and being sent home are unable to get shelter or attention till the next meal hour, unless in the house of a neighbour.

6.—The Personal History of Children prior to examination.

During the past year 89.3 per cent. of the parents filled up the form showing the personal history of their children due for examination. By so doing, the parents in a small measure make up for the loss entailed by their non-attendance at the inspection. The aid thus obtained certainly emphasises a condition which might, in an otherwise normal child, be dismissed as one of the few abnormalities liable to be present in any individual. From the information on these forms the following summary of the previous illnesses of 3,069 children has been compiled.

TABLE II.
Summary of Previous Illnesses.

Age	No. Examined		No. of Replies		Measles		Scarlet Fever		Diphtheria		Whooping Cough		Chicken Pox		Rheumatism		Growing Pains		Other Diseases	
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
3	113	144	102	129	76	82	3	5	...	...	23	44	14	27	2	...	...	...	5	10
4	279	275	230	238	171	170	6	13	...	...	65	76	34	39	2	2	1	2	12	11
5	389	373	330	334	237	239	27	23	5	9	122	132	65	69	2	8	3	1	25	27
12	691	697	635	640	546	560	112	99	43	22	203	234	146	170	56	109	28	56	50	43
13	52	56	50	55	37	43	8	7	2	2	17	23	7	9	2	11	5	3	1	8
	1524	1545	1347	1396	1067	1094	156	147	50	33	430	509	266	314	64	130	37	62	93	99
Totals	3,069		2,743		2,161		303		83		939		580		194		99		192	
			(89.3)		(70.4)		(9.8)		(2.7)		(30.5)		(18.2)		(9.5)					

Figures in brackets are percentages.

VACCINATION.

As in previous years, at the routine examination note was taken of the number of children vaccinated. Of the 3,069 children seen 1,331 (43.5 per cent.) showed no vaccination marks.

In comparison with the figures for 1913 there is an increase of 2 per cent. What this condition of improper protection against Small-pox might lead to can well be imagined, especially when one considers the dangers within industrial towns of the type of Rochdale, where not infrequently, sporadic cases of Small-pox occur.

In the following table the numbers and percentages of children with the protection of vaccination at the different ages is shown :—

TABLE III.

	AGE LAST BIRTHDAY.										TOTAL	
	3		4		5		12		13			
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.
Number Vaccinated ...	51	51	106	114	154	160	513	514	31	44	855 (56·3)	883 (56·3)
Number Examined ...	113	144	279	275	389	373	691	697	52	56	1524	1545
TOTAL ...	257 (39·6)		554 (39·7)		762 (41·0)		1388 (73·9)		108 (69·3)		3069 (56·6)	

Figures in brackets are percentages.

SECTION III.

- (a) Defects found during Routine Examination of "Entrants" and "Leavers."
- (b) Defects found during examination of 773 "Special" Cases.
- (c) Result of Re-examination of 351 Children previously found to have defects.

(a) DEFECTS FOUND BY ROUTINE EXAMINATION.

In the following table the numbers and percentages of defects found during the routine inspection of 1914 are shown. For the distribution due to sex and age, reference must be made to appendix A.

TABLE IV.

Classification	Name of Defect	1914		
		No. examined	No. with Defect	Percentage
1—General Condition ..	Clothing and Footwear defective	3069	146	4.7
	Malnutrition.....	"	66	2.1
	Uncleanliness	"	265	8.6
	Contagious Skin Disease ..	"	45	2.5
2—Defects of Mouth ...				
Nose and Throat	Carious Teeth	"	2143	69.8
	Tonsils much enlarged ..	"	257	8.3
	Adenoids	"	28	0.91
3—Defects of the Eye	External Eye Diseases..	"	326	10.6
	Defective Vision.....	*1496	278	18.5
	Squint	3069	36	1.1
4—Defects of the Ear	Ear Obstruction—right ..	"	134	8.5
	" " left...	"	85	5.4
	Discharging Ears—right ..	"	2	0.1
	" " left ..	"	2	0.1
5—Defects of the Lungs and Heart	Bronchitis.....	"	128	4.1
	Phthisis.....	"	4	0.13
	Heart troubles	"	23	0.7
6—Constitutional Diseases	Tuberculosis of Bone and Gland	"	4	0.13
	Rickets	"	36	1.1
	Rickety Deformities ...	"	394	12.8
7—Defective Speech		"	8	0.2
8—Mental Condition ...	Backward	"	6	0.1
	Mentally deficient	"	1	0.09
9—Defects of Nervous System		"	17	0.5
10—Deformities Other than Rickets		"	100	3.2
11—Other Diseases and Defects		"	411	13.3

* Only the 12 year old children were examined in a routine way for defective vision.

CLOTHING AND FOOTWEAR.

2·8 per cent. of the children examined were insufficiently clad and 1·9 per cent. insufficiently shod. The numbers were—103 boys and 43 girls.

As a rule, the clothing of the children is good, and generally speaking is kept clean and well repaired. Still, the class of the school, the neighbourhood and the efforts of the head teachers are all reflected in the condition of the children. There is still, unfortunately, the tendency to overclothe children, especially the infant classes, and thereby make such more liable to chills than if rationally clothed. As many as 13 separate garments have been counted on the trunk of a child—truly an exceptional case, yet one in which it was difficult to persuade the parent that such a practice was harmful, both physically and mentally, to the child.

But for charitable agencies, who provided clothing and clogs for deserving cases, from September to December, the number of children whose clothing or footgear would have been unsatisfactory must have been very much larger.

MALNUTRITION.

There were 66 cases of malnutrition or 2·1 per cent. of the children examined. The number is very much less than the previous year—partly due to the fact that all such children were, by the Committee's decision, allowed, irrespective of income, to have free meals on the recommendation of the Medical Inspector. Another factor was that the provision of free meals improved the children to such an extent that those that previously looked ill fed now appear plump and healthy.

There are still, however, a large number of pre-tubercular and ill-nourished children who would benefit by open-air education, while undergoing treatment. The local scheme for the prevention and cure of Consumption is now taking shape, and the time is now ripe for the provision of an open-air school under the Education Authority.

CLEANLINESS.

36 out of the 3,069 children examined were found to present a very dirty condition of the body. These cases are all of a severe type, no note being made of slight cases as every child, no matter how carefully kept, is liable to become dirty.

Of the children who were routine examined 229 or 7·4 per cent. had nits of the head. Some were also verminous and were immediately excluded from the school pending their proper cleansing. In this latter connection, all the parents were subsequently interviewed at the Clinic. The greatest difficulty still is experienced in convincing parents that nits are the eggs of vermin, and that every spring, autumn or summer, as the case may be, does not of necessity bring a renewal of this condition. In some old offenders that excuse is the only one possible and is usually easily overcome.

Notwithstanding, there is continued improvement to be seen in the condition of the children's heads as shown by the figures given in table IV.

Briefly stated the percentages are :—

Year	1909	...	...	...	...	62·8 had nits or vermin
„	1911	...	...	...	...	31·4 „ „
„	1913	...	...	...	...	23·6 „ „
„	1914	...	...	...	...	17·1 „ „

With all this improvement certain families are always at fault, and they are gradually being dealt with under the Children's Act by exclusion from school and being reported to the attendance officers for following up.

For the first time in Rochdale provision has been made in a school for the children getting spray baths. This improvement will come into force on the completion of the new Lowerplace School. It is desirable that similar provision should be made in at least all the Council's schools in this area, as the teaching of personal hygiene is very much more effective where applied.

TEETH.

As in all previous reports the defect which is the most common to all classes in Rochdale is dental caries. Could the medical inspector only see the teeth of school children with the eye and knowledge of a fully-trained dental surgeon the numbers with defects must necessarily be greater. As it is in 1914, of the 3,069 children examined by routine inspection no less than 2,143 or 69·8 per cent. had one or more teeth carious. Compared with last year this is an increase of 6·6 per cent.

During 1914 the establishment of a Dental Clinic has been carried out—the staff consisting of an experienced Dental Surgeon and a trained nurse.

It is hoped by this means to inspect all children attending Rochdale schools as they reach the age of 6 or 7. Each child found defective will be offered, through its parent, advice and if necessary free treatment. Then, not only will these children duly receive treatment, but, in years to come, they will be followed up as far as possible. Not only are children of these two ages inspected but such cases as are requiring urgent treatment for toothache, gumboil, &c., are also seen and offered treatment. The treatment offered to children of 6 and 7, called “ routine cases,” is such as to arrest decay in all parts where caries has set in with the extraction of all unsavable or septic teeth; that given to “ special ” cases is practically speaking the extraction of such teeth as are necessary.

REPORT BY DENTAL OFFICER.

“ It was conclusively proved over twenty years ago by an Investigation Committee that there was urgent need for the inauguration of primary school dental clinics, but until about five years ago such a clinic had not become an accomplished fact. Medical statistics, some years ago, showed that in children suffering from oral sepsis the incidence of enlarged glands, deafness, and other conditions was very great, that those children were in lower standards than they otherwise would have been through apathy and dullness, and that those children with the most unhealthy mouths were below the average of their age in weight and general physique. School dental clinics have been instituted that children may benefit in appearance, health and the absence of toothache, but the main result desired is that ultimately the Dental Clinic may become one of the strongest factors in the prevention of many diseases consequent on chronic oral sepsis. The reports on dental treatment in the districts that were in operation during the last few years make it evident that there is a general improvement in the health and physique of the poorer classes, in the attendance and school work, and a decidedly increased resistance to disease, especially tuberculosis. Parents previously sceptical of dental treatment for their children are steadily being convinced by the results that it is a great boon.

“ Rochdale, like other Lancashire towns, presents an appalling condition of the teeth of school children, as was revealed by previous medical inspection. This report was drawn up after five schools only had been examined, and as was expected, the more thorough inspection by mirror and probe has proved that relatively speaking the figures relating to dental caries, abnormalities of the teeth, diseases manifested by the dentition, as Rickets and Syphilis will be very high indeed when a complete inspection of all schools has been made.

“ There are many causative factors of this unhappy state of affairs, a few of which may be local causes owing to the conditions and high pressure under which the working classes live. For instance, many mothers are out working all day and infants are left in charge of neighbours or put in charge of someone paid to attend them. The children do not receive the proper attention or feeding, and continually use a comforter. At home they have whatever food is going, and are sent very early to school, where they often contract the exanthematous diseases while calcification of the permanent dentition is in progress, thus causing the honey-combed teeth of hypoplastic nature. This condition also is caused by teething powders, often containing mercury, much in use in working-class areas. The comforter often causes irregularity of teeth and adenoids, the improper feeding predisposing children to rickets and illness generally. As the percentage of children more

or less rachitic is high, the teeth accordingly suffer by being poorly calcified and atrophied. The water locally may also be a factor in the causation of defective teeth.

"The following tables give the figures relating to the inspection in five schools of children aged 6 and 7 years ; boys numbering 171 and girls 176.

TABLE V.
Showing frequency of Caries.

(Stated in percentages).

	Boys		GIRLS	
	Temporary	Permanent	Temporary	Permanent
Sound ...	65.0	81.1	62.2	84.9
Savable ...	15.1	18.8	16.8	14.8
Unsavable ...	19.1	Nil.	20.8	.2

These figures represent percentages of the sum total of temporary and permanent teeth seen respectively. The slight advantage to the boys as shown above is generally observed when the relative figures are compared, and seems to be in some way associated with the fact that the teeth erupt earlier in the female than in the male. The high percentage of caries in permanent first molars and the rapid nature of caries present indicates a susceptibility to caries due to pathological causes, and spontaneous arrest of caries is relatively rare. Carious temporary teeth also present the rapid variety and, as indicated by the percentage of unsavable, very soon become septic.

PERCENTAGE OF ABNORMALITIES.

	Boys	Girls
Irregular Teeth	28.6	31.8
Malocclusion or abnormal articulation	12.8	19.3
Hypoplastic or chalky Teeth	15.2	11.3
Rachitic Teeth	2.8	2.8
Hutchinson or Syphilitic Teeth ... ..	.5	.6

"Again the percentages relating to Boys' teeth is the more satisfactory even after deducting the balance of the relative numbers. The last three abnormalities are due to pathological causes and can only be combated in early life by means of specific drugs and treatment. All rachitic teeth are hypoplastic, due to poor calcification ; the early treatment therefore is to promote or stimulate calcification generally during foetal life and in the ensuing three or four years. The frequency of Hutchinsonian teeth compares favourably with that in other working centres. The condition of course is an instance of the inexorable law of heredity.

TABLE VI.
State of Gums and Teeth.

(Stated in percentages).

	GUMS			TEETH			
	Healthy	Inflamed	Septic	Clean	Fairly clean	Dirty	Some Tarfar
Boys ...	86.5	5.2	8.1	8.7	53.8	37.4	32.1
Girls ...	82.9	11.9	5.1	16.4	58.5	25.0	13.6

" The state of the teeth not only indicates neglect of the ordinary attention as brushing, but that the food eaten requires little or no mastication, and obviously is not of such a nature as to mechanically cleanse the teeth.

" Sloppy food or food of a pulpy nature causes the formation of a film which clings to the surfaces of the teeth, and debris will collect in the inter-dental spaces and in the fissures of the cusped teeth, through the lack of need to use the means of mastication. In this way the jaws, teeth, muscles of mastication are undeveloped through want of use, the flow of saliva is rendered insufficient and viscid, and caries of the teeth flourishes and causes the havoc in the dentition as indicated in the above table. The condition of the gums is the first direct result of the depredation of caries. Septic gums, as indicated in the above table, refer to conditions caused by an aggravated general oral inflammation, with consequent bacterial infection, largely due to total neglect of oral hygiene coupled with atony from lack of exercise. In addition to this gingival sepsis there is also the septic or unsavable tooth causing a localised abscess on the gums. The effect of so much septic and putrifactive matter in the mouth is ultimately shown in the constitution and general health of the children affected. In time it is to be hoped that continual advice in the care of the teeth of their children to parents, supported by the timely word from the teachers, will arouse a new interest and have the effect of abolishing the unclean mouth from our schools. As a suggestion, Rochdale might do worse than follow the lead of other towns where school dental work is being done by supplying a tooth brush, at the average cost of 2d., to the children through the teachers, who undoubtedly would make the most of the opportunity to devote a little time to teaching the importance of oral hygiene.

" A. MACGREGOR WHYTE, L.D.S., R.F.P.S. (GLASG)."

TONSILS AND ADENOIDS.

257 children or 8·3 per cent. on inspection had markedly enlarged tonsils, sufficiently so to necessitate their treatment, preferably by removal. This marked increase during 1914 may be in part, if not wholly, due to the extensive epidemic of Scarlatina in Rochdale during 1913 and part of 1914, leaving a large number of children partially crippled either by chronic enlargements, or, more commonly, a tendency to periodic sore throats with consequent temporary enlargement of both tonsils and glands. It is to prevent this condition of things that medical inspection is so very necessary, for not only are defects discovered which on removal improve the health of the children, but also their attendance at school is more regular.

There are circumstances, however, due to ignorance, which prevent the full benefit of medical inspection from being reaped. These are the fear of injury rather than cure, or the disinclination of the parent to pay for treatment ; yet when children reach " half-time " age such parents are the first to get defects remedied. No defects have such a deleterious effect on children as enlarged tonsils and adenoids ; for not only are the children prevented from developing normally, but they tend to become mouth breathers, thereby allowing them to inhale dust particles direct into the lungs without previous filtration, as usually carried out in the nose. In this way there is a tendency to chest trouble—which is the one most suitable for the commencement of consumption—a condition especially to be guarded against in a community when the working classes are predominantly mill operatives.

EYE DISEASES, INCLUDING SQUINT.

362 children or 11·4 per cent. on examination were found to be suffering from diseases of the eye. Of these 117 or 7·4 per cent. suffered from conjunctivitis or inflammation of the insides of the lids and the tissues adjoining. This condition is very easily cured if properly treated early, but usually is allowed to progress till such a time as the child cannot bear the light or see, and at such a stage treatment very often has to be carried out for a very much longer period, and the possibility of infecting other members of the family is also increased.

36 children or 1·1 per cent. had very marked squint due to errors of refraction. All these cases were referred to Dr. Harry for treatment. Although free examination and advice is given parents even yet will not allow their children to be examined, or if they permit it, often will not purchase the spectacles. In all cases where the income of the family is considered too low to expect payment, the necessary glasses are provided free. In such a way the sight of the squinting eye is often preserved or at least assisted to such an extent as to cure the squint.

VISION.

As in previous years, only the vision of the 12 and 13 year old children was tested at routine examinations. 278 (18·5 per cent.) had distinctly bad vision out of 1,496 tested. Again the vision of 229 children was subnormal. All the 278 were offered treatment by Dr. Harry, whose report is included under Section IV.

In the following tables there is shown the number of children with each degree of visual defects, and also the combination of the degrees one with another.

TABLE VII.

Condition					ROUTINES								Specials		
					Entrants				Leavers						
					Boys	Girls	Total	Per cent.	Boys	Girls	Total	Per cent	Boys	Girls	Total
Squint	13	13	26	1·6	7	3	10	0·6	21	38	59
Vision	{	6/6 both eyes (Normal)	...	...	...	...	273	180	453	30·2	197	151	348
		Right eye only	...	...	...	...	53	57	110	7·3	11	11	22
		Left	...	...	...	...	41	37	78	5·1	13	13	26
		6/9 Right	...	...	...	...	50	95	145	9·6	15	19	34
		Left	...	...	...	...	74	89	163	10·8	14	21	35
		6/12 Right	...	...	...	...	30	27	57	3·8	9	23	32
		Left	...	...	...	...	30	42	72	4·8	13	10	23
		6/18 Right	...	...	...	...	32	48	80	5·3	23	29	52
		Left	...	...	...	...	37	48	85	5·6	23	32	55
		6/24 Right	...	...	...	...	36	33	69	4·6	14	20	34
		Left	...	...	...	...	28	32	60	5·0	14	13	27
		6/36 Right	...	...	...	...	20	20	40	2·6	10	14	24
		Left	...	...	...	...	15	26	41	2·7	8	14	22
		6/60 Right	...	...	...	...	6	6	12	0·8	8	7	15
		Left	...	...	...	...	4	6	10	0·6	6	10	16
		6/0 Right	...	...	...	...	5	2	7	0·4	3	...	3
		Left	...	...	...	...	2	2	4	0·2	3	2	5
Total Inspected					781	792	1573	...	743	753	1496	...	384	389	773

Total Number of Routine Inspections 3,069.

The vision of each child is determined by the use of Snellen's test type, which is read by each eye separately. The type is so graduated that the size marked 6 can be read by a normal eye at 6 metres or 20 feet. The size of the letters vary up to those for 60 metres. It follows that the vision can be expressed as a fraction—the numerator being always six, the constant distance at which the type is read, and the denominator being the distance at which the smallest type the eye can read, should be read, *e.g.*, the normal eye is expressed as 6/6, but an eye which can see no smaller type than that normally legible at 18 metres is expressed as having vision 6/18.

TABLE VIII.
Comparative Defects of Vision.

Boys.										Girls.											
Left	0	6/60	6/36	6/24	6/18	6/12	6/9	6/6	Right Eye	6/6	6/9	6/12	6/18	6/24	6/36	6/60	0	Left			
555	3	1	2	5	7	10	23	504	6/6	504	6/6	6/6	466	17	4	13	8	6	2	1	517
51	...	...	1	...	3	2	33	12	6/9	6/9	6/9	6/9	16	59	13	3	2	1	...	...	94
34	...	...	...	2	4	12	10	6	6/12	6/12	6/12	6/12	3	4	13	4	1	1	...	...	26
35	...	1	2	4	10	5	4	9	6/18	6/18	6/18	6/18	8	4	13	16	7	3	1	1	53
34	...	...	2	13	10	1	3	5	6/24	6/24	6/24	6/24	2	4	1	10	11	3	...	...	31
24	...	...	5	5	2	3	4	5	6/36	6/36	6/36	6/36	5	4	1	2	1	9	1	...	23
6	...	2	...	2	2	...	...	...	6/60	6/60	6/60	6/60	...	...	...	1	...	1	2	1	5
4	...	1	...	...	...	...	1	2	0	0	0	0	1	...	...	...	2	1	...	2	4
Total	3	5	12	31	38	33	78	543	Right Eye	501	92	45	49	30	25	6	5	Total			

The comparative table brings out the contrasts between the boys and girls:—

Normal Vision, *i.e.*, 6/6 both eyes.

67·83 per cent. of the boys had normal vision.

61·88 „ „ girls „ „

Subnormal Vision, *i.e.*, either or both eyes below normal and yet not sufficiently defective to require treatment for the defect of itself.

17·63 per cent. of boys had vision of this class.

17·13 „ „ girls „ „

Bad Vision, *i.e.*, either or both eyes with vision 6/18 or less.

14·53 per cent. of the boys were so affected as against 20·98 of the girls.

So that contrasted, the boys have a much better average ; this is in part explained by the fact that girls have extra eye strain in sewing classes than the boys, who at such a time may be doing drawing ; and again the class of work to which a percentage of the children are being put must have a deleterious effect upon the eyesight, and especially is this so for the girls in that of the trades in Rochdale, there is not so great a variety for the women as for the men.

In comparing the defect percentage of individual schools the association of bad housing, poverty and disease naturally make their presence felt. Another fact, however, stands out, and it is that in the only school where electric or incandescent light has not yet been installed there is a higher percentage of visional defects present. Although artificial lighting does not play a very extensive part in school work, yet any defect in its provision has a much greater effect on the child's eyes than is at first apparent. It not only produces greater impurity of the air but also its action always comes into play towards the end of a school day, when the slightest unnecessary extra strain naturally produces the maximum effect.

DEFECTS OF THE EAR.

During the course of medical inspection 85·7 per cent. children were found to be normal. The remainder suffered from either discharging ears or else obstruction due to wax. In either case the diminution of the aural acuteness must involve a vast amount of extra exertion on the part of the child to hear and that of the teacher to make the child understand.

The parents of all such children are notified that the treatment for such defects is systematic syringing of the affected ear or ears, but the results are not nearly so good as they might be. Cases of severe otorrhœa are dealt with as far as possible at the Treatment Clinic, and failing improvement there, are referred to the Infirmary for more drastic treatment.

DISEASES OF THE HEART AND LUNGS (other than Tuberculosis).

Heart.

23 children, being ·7 per cent., were found on examination to be suffering from heart disease. In all these cases the lesions were severe and their abstention from exercises was ordered. Organic disease of the heart may be divided into two varieties, the mild and the severe. The former includes children who, though suffering, do not show any signs of their condition, *i.e.*, the heart is able to exert itself sufficiently to overcome any temporary strain put upon it. In this type of case, if the condition be not recognised and the physical exercise carefully regulated, there is apt to be an increase rather than an improvement in the progress of the disease. Severe cases are those which show various signs of the presence of organic disease. Children so suffering are usually disinclined to play, are listless and easily tired. In such, any physical exercise is harmful, and too, usually contrary to the inclination of the child.

Parents fortunately take rather a gloomy view of heart trouble so that in all the above cases when interviewed they expressed their willingness to get medical aid and to keep the children under constant observation at the Inspection Clinic ; in this way an immediate cessation of school work can be ordered should any increase in the gravity of the case be discovered.

Bronchitis and Bronchial Catarrh.

These conditions, though closely allied, are to be distinguished by the fact that a child suffering from the former probably would be unable to attend school, while if the latter might be a regular attender and appear quite well.

128 children were found to be suffering from these complaints, and of these 18 had Bronchitis. Certain factors predispose to these conditions, such as mouth-breathing from force of habit or due to enlarged tonsils. A second and much more serious cause is Rickets, but of this type there were only 11 cases.

TUBERCULOSIS.

Four children (·13 per cent.) were found to be suffering from Phthisis—three of these were early cases and one of a later stage.

During 1914 the following notifications of Tuberculosis amongst children of school age were received :—

- 11 notified as suffering from Pulmonary Consumption ; and
- 23 as suffering from Non-Pulmonary Tuberculosis.

These latter were subdivided as follows :—

- 11 cases of Tuberculosis of Glands in the neck ;
- 6 cases of Tuberculosis of the Abdomen ;
- 2 cases of Tubercular disease of bone ; and
- 4 cases of diseases of other parts of the body.

Children are very susceptible to consumption in one form or another. When one remembers that quite unknowingly tuberculous milk can find its way into a town's supply, and when there is so much of the bottle-feeding of infants it is not surprising that there are so many child consumptives. Again, compared with tuberculosis in adults, there are more severe cases to be found amongst the children, because the earlier recognition of this disease is easier in men or women than in the child—its progress, therefore, appears quicker.

All children whether definitely affected or doubtful were referred to the Tuberculosis Dispensary for further examination and, if necessary, treatment. In this way debilitated children were enabled to get away either to the sea-side or the country through charitable channels. Those who were definitely affected, were sent in many cases, through similar agencies, to Sanatoria. The treatment they have already obtained has not, however, enabled them whether pre-tubercular or tubercular to fight the disease for more than a few months, so that the necessity for further provision to be made is evident. The Board of Education are prepared to make a special grant towards the expenses of such an institution, and now that the Corporation Sanatorium is about to be built, the opportunity has arrived whereby an open-air school can be provided for such cases as are below the normal. By such means only can the spread of this dire disease among school children be controlled, and at the same time permit them to receive that amount of education, that is necessary to fit them for such work, as will keep them from becoming charges of the state.

RICKETS AND RICKETY DEFORMITIES.

430, being 14 per cent. of the total number of children examined, suffered or had suffered from Rickets. Of this number 394 had been affected to such a degree as to cause bow-legs, knock-knees, or " pigeon " breasts. That there should be such a large number of such children is evidence of gross ignorance and neglect during the earlier years of childhood. The giving of improper food, the want of sunlight and fresh air are the main causes of this condition. The preponderance of the cases naturally is found amongst the poorer schools, as poverty, ill health and dirt all go hand in hand. Again, not only do these obvious deformities show themselves, but the stunted growth, the malformed head leads to crowding of the teeth with consequential earlier dental decay and malnutrition of the body.

In such a way the health and strength of the children is impaired to such an extent that they start upon life under a severe handicap. The effects are not so evident amongst the older children, but the leeway which has to be made up does not admit of their comparison with the non-rickety child of the same age.

All children having severe defects are referred to local societies for free institutional or home treatment, and in this way improvement and education are brought about.

DEFECTIVE SPEECH.

8 children had defects of speech. Of these 6 were stammerers, and were referred for special treatment in a Stammerers Class. There were only two children with "Infantile" speech.

MENTALLY DEFECTIVE CHILDREN.

7 (0·22 per cent.) of the 3,069 children examined were found to be mentally defective. Only one was considered totally ineducable and fit for a home. The majority of mentally defectives in Rochdale are allowed to attend school. This cannot be either for their good nor for those they associate with. During the past year legislation has been passed whereby the responsibility for the dealing with the defective child is thrown on the local Education Authority.

After the due classification of all such children it is hoped to present a scheme to the local Authority whereby not only provision can be made for all such children as are educable, but also if possible to include some provision for those termed "backward." The latter are a very great hindrance to the efficient teaching of normal children, for they either get too much attention or else too little.

So far as one can see there are only two alternatives open to discussion, either to provide a central day school or else a residential one.

There are various drawbacks to either course; chief amongst them being, so far as a day school is concerned, the dangers such defective children would run in coming to and from such a place. The great drawback to a residential establishment is the difficulty experienced in persuading parents to consent to their child's removal to such an institution.

DEFORMITIES OTHER THAN RICKETY DEFORMITIES.

100 children (3·2 per cent.) suffered from the following deformities, and their parents in all cases were seen and informed of the necessary treatment:—

Deflected Nasal Septum	...	80 cases	Club Foot	...	...	...	1 case
Spinal Curvature (lateral)	...	6 "	Other Forms	...	...	...	7 cases
Wry Neck	...	6 "					

HEIGHTS AND WEIGHTS.

The average heights and weights of the children weighed during 1914 are given in the following Table, together with the averages for 1908-10-11-12-13 inclusive, for the purpose of comparison.

TABLE IX.

	CHILDREN 5—6 YEARS OF AGE				CHILDREN 12—13 YEARS OF AGE			
	BOYS		GIRLS		BOYS		GIRLS	
	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)	Height (inches)	Weight (lbs.)
Av. for 1908-1910 incl.	40·62	38·89	39·9	36·64	53·82	70·11	54·29	71·06
Averages for 1911.....	40·59	38·8	40·75	38·15	53·90	70·05	54·15	70·80
Averages for 1912.....	40·65	37·5	40·54	38·8	54·75	70·5	54·88	70·1
Averages for 1913.....	40·65	38·4	40·15	36·6	53·90	70·5	54·37	71·4
Averages for 1914.....	40·25	38·59	40·20	37·59	53·49	69·57	55·12	70·35

(b) DEFECTS FOUND AMONGST THE "SPECIAL" CASES.

This group comprises all children attending school, not included amongst the "entrants" and "leavers," who, in the opinion of the Head Teacher, require Medical inspection. The inspection of "specials" is of primary importance. Apart from the obvious gain which ought to result from the treatment of the defects discovered, the examination of these children ensures that pressure can with more certainty be put upon the parents who habitually keep their children from school without adequate reason.

773 "Specials" were presented for examination during the year. 31 suffered from no obvious defect, and the conditions found in the remaining 742 were as follows:—

TABLE X.
Classification of "Special" Cases Defects.

Classification	Name of Defect	Number
1.—General Condition	Uncleanliness	14
	Contagious Skin Diseases	18
2.—Defects of Mouth, Ear and Nose	Enlarged Tonsils (much)	46
	Adenoids.....	14
	Nasal Obstruction.....	33
	Mouth Breathers.....	89
3.—Defects of the Eye	External Eye Diseases	76
	Defective Vision—Bad	129
	Sub-Normal ...	44
	No defect	31
		204
4.—Defects of the Ears and Hearing	Squint	59
	Wax in Ears—Right	36
	Left	35
	Discharging Ears—Right	25
	Left	15
	Defective Hearing.....	14
5.—Defects of Heart and Lungs	Heart Diseases	5
	Bronchitis	3
6.—Defects of Nervous System ...	Chorea.....	5
	Other Defects	9
7.—Mental Defects	Backward	14
	Mentally Deficient	25
	Epileptic	1
8.—Constitutional Diseases	Rickets	4
	Rickety Deformities	13
	Tuberculosis of Skin, Glands and Bone	3
9.—Deformities other than Rickets	Deflected Septum—Cleft Palate, Infantile Paralysis, &c.	12
10.—Defective Speech		29
11.—Other Diseases	Anæmia	3
	Unclassified	10
	Phthisis	3

(c) CHILDREN RE-EXAMINED.

Of the 864 children due for re-examination from the previous year's work only 351 were seen. This is due to the large number who have, since examined last at the age of 12 or 13, started to work "full time." So little opportunity exists for re-examination, that although special efforts may be made to see all, there is bound to be some leakage.

In the subjoined table the defects are shown whether treated or untreated in the 351 re-examined.

TABLE XI.

Report on 351 children re-examined.

Defects from which these 351 children suffered	Total Number of Defects	Number Treated, and :—		Number not Treated
		Better	Cured	
Skin Diseases	15	5	10	...
Teeth	88	10	28	53
Nose and Throat—				
Enlarged Tonsils	86	5	29	52
Nasal Obstruction.....	46	3	27	27
External Eye Diseases	35	4	19	12
Vision	2	1	...	1
Ears—Purulent Discharge	37	28	7	4
Wax	21	8	6	7
Heart	8	8	...	...
Lungs .....	...	...	...	...
Rickety Deformities	9	2	3	4
Other Diseases	17	7	9	1
TOTAL	364	81	143	164 (45.0%)

The percentages of cases untreated during the past years are as follow :—

In 1910	...	...	...	...	...	...	...	65.2 per cent.
„ 1912	...	...	...	...	...	...	...	49.6 „
„ 1913	...	...	...	...	...	...	...	38.8 „
„ 1914	...	...	...	...	...	...	...	45.0 „

SECTION IV.

Review of the methods available for the prevention and treatment of disease.

Under this heading fall (a) The Work of the School Nurses ; (b) The Work of the School Clinic ; (c) The Feeding of School Children ; and (d) The Control of the Spread of Infectious Diseases in Elementary Schools.

(a) THE WORK OF THE SCHOOL NURSES.

By carrying out the Head Cleaning Scheme and making Home Visits, the School Nurses play a most important part in the work of medical inspection. The enormous improvement in the cleanliness of the children during the last five years speaks well for the energy and enthusiasm of the nursing staff, for there is no denying the fact that dealing with large numbers of dirty children, and more especially with the parents of those children, is depressing and uphill work. An important factor, and one which must not be overlooked, contributing to the great increase in cleanliness shown by the figures given below, is the hearty spirit of co-operation and sympathy which exists between the Teachers and Nurses.

In addition a large number of chronic cases have been kept under control at the Inspection Clinic by being excluded from school till such time as the children are cleansed. These children are notified to the Attendance Officers who take such action as necessary.

Head Cleansing.

The School Nurses have visited all the schools during 1914 twice, but have in addition held two special inspections at each of four schools. All children found verminous at the latter were reported to the Medical Inspector and were examined by him at the School Clinic, if possible, in the presence of the respective parents.

17,900 inspections were carried out and the relative proportions of the clean and dirty are shown in the subjoined table. 173 verminous children were followed up, and the procedure now adopted usually brought about a very much quicker cleansing of the children's heads than previously.

TABLE XII.

Personal Cleanliness as found by School Nurses at the Inspections of all the Girls in each School.

1914	Number of girls examined	Number Clean.	Number Verminous and Nitty	Number of Cards sent	Number of Homes Visited
1st Inspection	6,043	4,894 (80·9)	1,149 (19·0)	729	221
2nd Inspection	5,732	4,564 (79·6)	1,168 (20·3)	722	169
3rd Inspection	6,125	5,190 (84·7)	935 (15·0)	484	70

Numbers in brackets are percentages.

The gain in cleanliness shown by the figures for the last six years is as follows :—

Year	1909	...	...	62·8	per cent.	had nits or vermin,	and	37·2	per cent.	were clean
„	1910	...	...	44·3	„	„	„	55·7	„	„
„	1911	...	...	31·4	„	„	„	68·6	„	„
„	1912	...	...	27·0	„	„	„	73·0	„	„
„	1913	...	...	23·6	„	„	„	76·3	„	„
„	1914	...	...	17·1	„	„	„	82·8	„	„

and when it is mentioned that the standard for cleanliness is considerably higher now than in 1909 (probably from 10 per cent. to 15 per cent. higher) it will be seen that there is all the more reason for congratulation.

Home Visits.

1,187 homes have been visited by the Nurses during the year for the purpose of making more effective the work of medical inspection. The Nurses explain the necessity of obtaining medical advice, stimulate the parents to greater cleanliness, and also assist and advise the mother when domestic attention rather than medical treatment is required. Of the 1,187 visits made

460	were concerning	Dirty Heads
86	„	Contagious Skin Diseases
641	„	Defects discovered at inspection

(b) THE WORK OF THE SCHOOL CLINIC.

The School Clinic has again extended its scope to provide free dental treatment for all scholars whose parents apply for or give their consent to such treatment. So that the School Clinic now includes the Inspection Clinic, the Eye Clinic, the Treatment Clinic, and the Dental Clinic.

Hours of Attendance.

The Inspection Clinic is held from 2 to 5 o'clock every Monday afternoon on which the schools are open, and during these hours the Doctor, assisted by one of the Nurses, is in attendance. A minor Inspection Clinic has also been held for a few weeks at a time when there has been necessity to refer verminous children to the clinic. This usually was held on Thursday mornings at the same time as the Treatment Clinic.

The Eye Clinic is held every Friday afternoon, from 2 to 5 o'clock, and is conducted by Dr. Harry, the Eye Specialist, who is assisted by the second School Nurse.

The Treatment Clinic has been held every week-day morning, at 9 o'clock, and the work of treatment is carried out by the three School Nurses, under the supervision of the School Doctor.

The Dental Clinic is held daily, except Sunday and Monday. The latter day is utilised for School Inspection by the Dental Officer, and thereby allows of the common waiting room being used on that day for children and parents attending the Inspection Clinic. The hours for treatment are from 9 a.m. to 12-30 p.m. and 2 to 5 p.m. During these hours the Dental Officer has the assistance of the third School Nurse.

THE WORK DONE AT THE INSPECTION CLINIC.

The Inspection Clinic has been established for the following purposes :—

- (a) The examination of children as to their fitness for school, or as to their fitness to undertake physical exercises, swimming, &c.
- (b) For the further examination of scholars referred to the Doctor from the School Inspection.
- (c) The supervision of children suffering from infectious diseases and of "Contacts."
- (d) The periodic supervision of Phthisis.
- (e) The examination of candidates for admission to Special Schools, *i.e.*, Industrial, for Deaf and Dumb, Mentally Defective, &c.

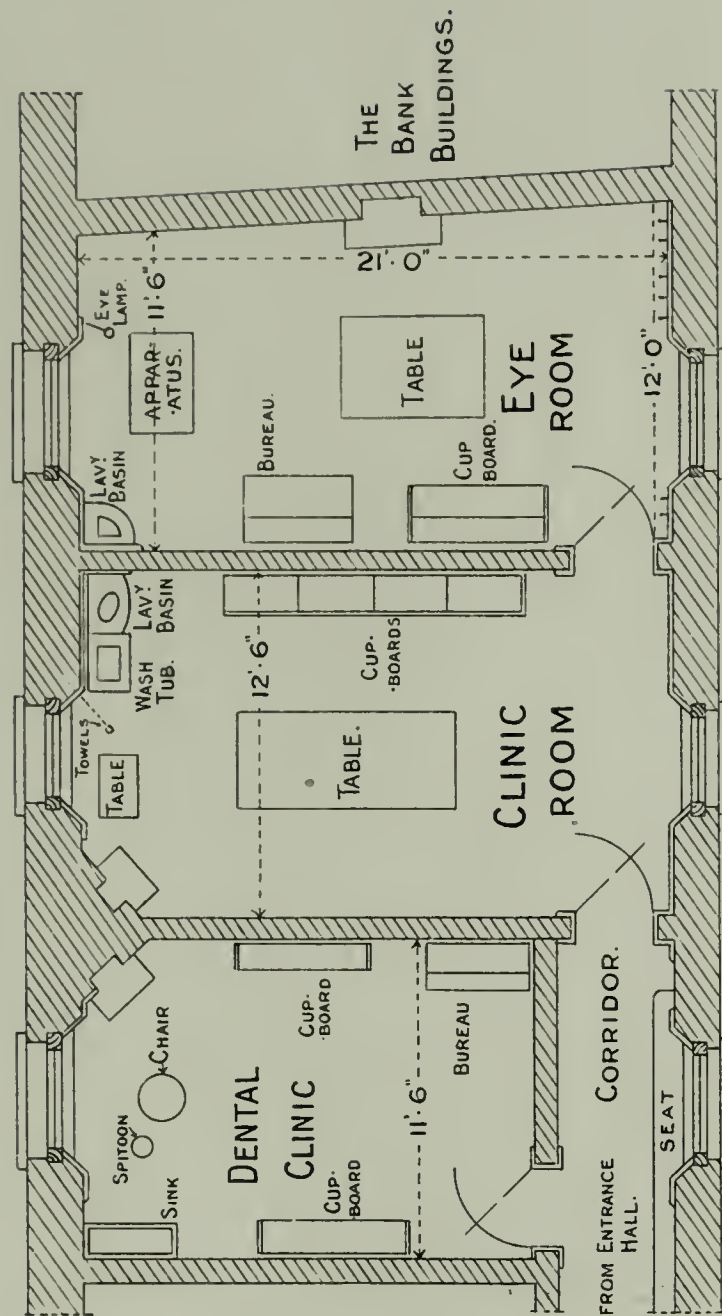
During 1914, 868 children attended the Inspection Clinic, and made 2,025 visits. 52 were cases referred for such further examination as could not be carried out at school. The remaining 816 children seen at the Clinic were sent by Nurses, Teachers and Attendance Officers, and many were brought voluntarily by parents.

The following are the diseases from which these children suffered :—

Ringworm	...	...	138 cases	Other Skin Diseases	...	30 cases
Eczema	...	...	48 "	External Eye Diseases	...	74 "
Impetigo	...	...	43 "	Defective Vision	...	123 "
Scabies	...	...	8 "	Other Diseases	...	280 "
Infectious Disease and Infectious Disease Contacts	...	...	...		...	124 "

THE WORK DONE AT THE EYE CLINIC.

501 children were referred for further examination to Dr. Harry, and of these 104 did not put in an appearance. Of the 397 actually examined by Dr. Harry, 367 did and 38 did not require treatment either because their glasses were suitable or else suffered from defects other than refraction. The 104 who did not come were followed up and a goodly proportion have since received treatment or agreed to accept it in due course.



SKETCH PLAN OF ROOMS AT THE
OFFICE, BAILLIE STREET, WHICH HAVE BEEN
ADAPTED AS CLINIC ROOMS.

TABLE XIII.
Age Summary of Eye Cases.

	AGE LAST BIRTHDAY.													TOTAL
	3	4	5	6	7	8	9	10	11	12	13	14	15	
Number examined	43	29	30	46	39	48	49	105	8	...	...	397

As was to be expected from the fact that only the "leavers" had their vision tested at the routine examination, the largest number requiring spectacles occurs amongst the 12 year old children. All the cases below 12 requiring spectacles were presented by the teachers as "special" cases, and the selection of such a large number of cases (representing probably the majority of cases of defective vision in the rest of the school) reflects great credit on the observance of the teachers.

In the following table are classified the particular defects of vision discovered by Dr. Harry.

TABLE XIV.
Defects found amongst the Eye Cases examined by Dr. Harry.

DEFECTS	AGE AND SEX						All Ages of each sex		TOTAL
	3 and 4 years		5 to 9 years		10 to 13 years				
I.—REFRACTION ERRORS—	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
Hypermetropia	43	35	26	26	69	61	130
Myopia	3	5	11	9	14	14	28
Simple and Compound Hyper- metropic Astigmatism.....	29	44	26	41	55	85	140
Simple and Compound Myopic Astigmatism	4	5	7	11	11	16	27
Mixed Astigmatism	1	5	12	16	13	21	34
Total Number with Refraction Errors	80	94	82	103	162	197	359

DR. HARRY'S REPORT.

"Of the children who required glasses, the relation of hypermetropes to myopes remain about the same as in the previous year. Three-fourths of the 369 cases examined were hypermetropes or hypermetropes with astigmatism, the remaining fourth were myopes, myopes with astigmatism or myopes with a low degree of hypermetropia in one axis.

"The number of "entrants" shew an increase over those examined in 1914, although relatively there ought to be a larger number of myopes. Parents still have to realise the hereditary character of myopia, and the fact that early correction will prevent its increase. In the opposite condition (hypermetropia) they appreciate the improvement in vision or the correction of the squint as the case may be, and they notice that the children are brighter and are able to assimilate knowledge with greater ease, and it is not difficult to see that this must be the case when one realises the amount of energy wasted by uncorrected hypermetropes in trying to accommodate.

"Several refraction cases suffering from external eye conditions have been referred to the Treatment Clinic, and glasses have been ordered later.

"PHILIP A. HARRY, M.D., D.P.H."

THE TREATMENT CLINIC.

The Clinic has been established for the treatment of Ringworm, Impetigo, Itch, External Eye Diseases, and Running Ears, etc., all of which conditions interfere to such a large extent with school attendance, and are readily communicable to other children.

The cases have been selected by the Doctor, Nurses, and Teachers, the final selection in each case being made by the Doctor. Only necessitous cases and those likely to benefit by treatment have been admitted to the clinic.

The Clinic was opened in March, 1912. During 1914, 871 children, who paid 10,656 visits to the Clinic, were treated. 771 were cured. The numbers seen each month were as follows :—

TABLE XV.

Month	No. of New Cases	No. of Visits	No. discharged
January	57	861	85
February	73	837	47
March	53	854	68
April	60	747	52
May	59	793	47
June	42	322	35
July	95	1,233	74
August	25	479	42
September	55	594	26
October	119	1,389	102
November	141	1,433	92
December	92	1,111	101
	871	10,656	771

The diseases from which the children received treatment were :—

Impetigo	142
Eczema	96
Dirty Heads	15
Running Ears	20
Inflamed Eyelids, &c.	341
Ringworm	62
Septic Wounds, Ulcers &c.	137
Minor Accidents	23
Other Ailments	19
Wax in Ears	16

The Clinic has worked smoothly, and there has not been one single case of conflict with any of the medical men in the district.

THE DENTAL CLINIC.

The Dental Officer is in attendance to give treatment to either "special" or "routine" patients from Tuesday to Saturday. Certain hours are set apart for the treatment of "specials," these hours being 9 to 10 a.m. and 4 to 5 p.m. Again, all routine cases are seen by appointment, at times between 10 a.m. and 5 p.m. By such a system only is it possible to prevent that loss of time to the "special" cases, who otherwise might have to wait for hours for treatment and only then be sandwiched between routine cases as they permit. The onus of sending children down to the Clinic at the selected hours is thrown on the Head Teachers, who are always duly notified and on whose co-operation the success of the scheme depends.

" 72.5 per cent. of the children inspected have attended the Clinic for treatment. Extraction only is offered the " special " cases sent by the Principal Teachers to the Clinic, after obtaining the parents' consent to their treatment.

Much benefit should be derived by children suffering from toothache, septic conditions of the mouth, irregularity or crowding of the teeth and retention of the temporary teeth after the permanents have erupted. The latter is the commonest complaint met with and is responsible for the irregularity and malocclusion so common in children between 8 and 12 years of age. It leads in addition to dental caries and mouth breathing, two factors having very deterrent effects on growth and health.

In the subjoined table is set forth the treatment received by children who attended the Clinic.

TABLE XVI.

		Number Treated	Attendance Total	EXTRACTIONS				DRESSINGS			FILLINGS			
				Temporary		Permanent		Temporary	Permanent	Scaling	Temporary		Permanent	
				Simple	With Local Anaesthesia	Simple	With Local Anaesthesia				Cement	Amalgam	Cement	Amalgam
" ROUTINE " CASES	Boys ...	114	208	269	163	1	3	264	173	11	46	59	13	107
	Girls ...	98	157	186	140	...	2	241	133	17	59	33	23	90
" Routine " Totals		212	365	455	303	1	5	505	306	28	105	92	36	197
" SPECIAL " CASES	Boys ...	105	105	134	65	8	35	...	...	...	...	...	...	...
	Girls ...	142	142	166	118	1	48	...	...	...	...	...	...	...
" Special " Total		247	247	300	183	9	83	...	...	...	...	...	...	...
GRAND TOTAL ...		459	612	755	486	10	88	505	306	28	105	92	36	197

The main treatment of routine cases is the filling of the first permanent molars. Amalgam is being used for this purpose wherever practicable. Temporary teeth in suitable condition for filling are being filled with amalgam or copper cement as the case demands. Decayed teeth which cannot be suitably filled are treated to cause an arrest of the caries by removing all soft decay and dressing with silver nitrate coated over with mastie varnish. In this way everything is being done to control the proliferation of caries and remove the causes of septic conditions."

(c) PROVISION OF MEALS.

The Board of Education having placed the general supervision of this branch of the work in the hands of the School Medical Department, it is now the duty of the School Medical Officer to report annually on the work undertaken in connection with the provision of meals for school children.

During 1914 there would have probably been on the average the same number of children requiring meals as in previous years, but with the sudden onset of war and the dislocation of trade and industry there arose a great need for fuller provision to be made. The organisation of the work and the time that elapsed before distress made itself severely felt did not permit of much provision being made before September, when there was an immediate increase in the number fed. In previous years the Education Committee had made no arrangements for giving breakfasts, but with the increase in numbers it was considered advisable to also provide breakfasts. Two main feeding centres were established, one of which, accommodating 300 children, supplied the schools of the poorest quarter of the town.

The need of the rest of the Borough was met by the arrangements carried out between the Committee and various refreshment caterers throughout the area to supply such children as should apply, who presented the recognised tickets. The numbers were usually so large that the teachers at the various schools in turn supervised the behaviour and feeding of the children. At the beginning, all children who applied were granted tickets till such time as the Attendance Officers made the necessary enquiries—and were only struck off on the information so obtained. As one would naturally expect, there were a large number of undeserving cases, but still the benefit these children received temporarily by more and better food is some slight compensation.

Usually the very necessitous cases were those whose parents were loth to accept meals for their children, but when persuaded to send them very often withdrew them again. This action on the parents' part, although in part laudable, is to be regretted, especially when one bears in mind the deficiency of Rochdale children as compared, in this respect, with those of towns outside Lancashire.

The number of meals supplied each month was as follows :—

				Breakfasts.		Dinners.		Total.
January	...	...	...	—	...	1,573	...	1,573
February	...	...	...	—	...	1,076	...	1,076
March	...	...	...	—	...	1,092	...	1,092
April	...	...	...	—	...	1,428	...	1,428
May	...	...	...	—	...	1,155	...	1,155
June	...	...	...	—	...	896	...	896
July	...	...	...	—	...	1,690	...	1,690
August	...	...	...	—	...	1,044	...	1,044
September	...	...	...	29,050	...	37,349	...	66,399
October	...	...	...	33,814	...	40,505	...	74,319
November	...	...	...	14,892	...	17,637	...	32,529
December	...	...	...	7,049	...	8,931	...	15,980
TOTAL				84,805	...	114,376	...	199,181

The average cost per meal calculated on the meals as supplied from April, 1914, to March 31st, 1915, works out at 1·89 pence. In this is included all administrative charges as well as food, but the full cost of the latter is not expressed therein because of the use latterly of materials such as potatoes, flour and mutton—which are the gifts of British dominions across the seas. If their cost were added the cost would work out roughly at 2 pence per meal.

The composition of the meals supplied is based on the list of diets issued by the Board of Education.

The following is a typical menu for a week's dinners :—

MONDAY.—Stewed meat and potatoes.

TUESDAY.—Potatoe pie.

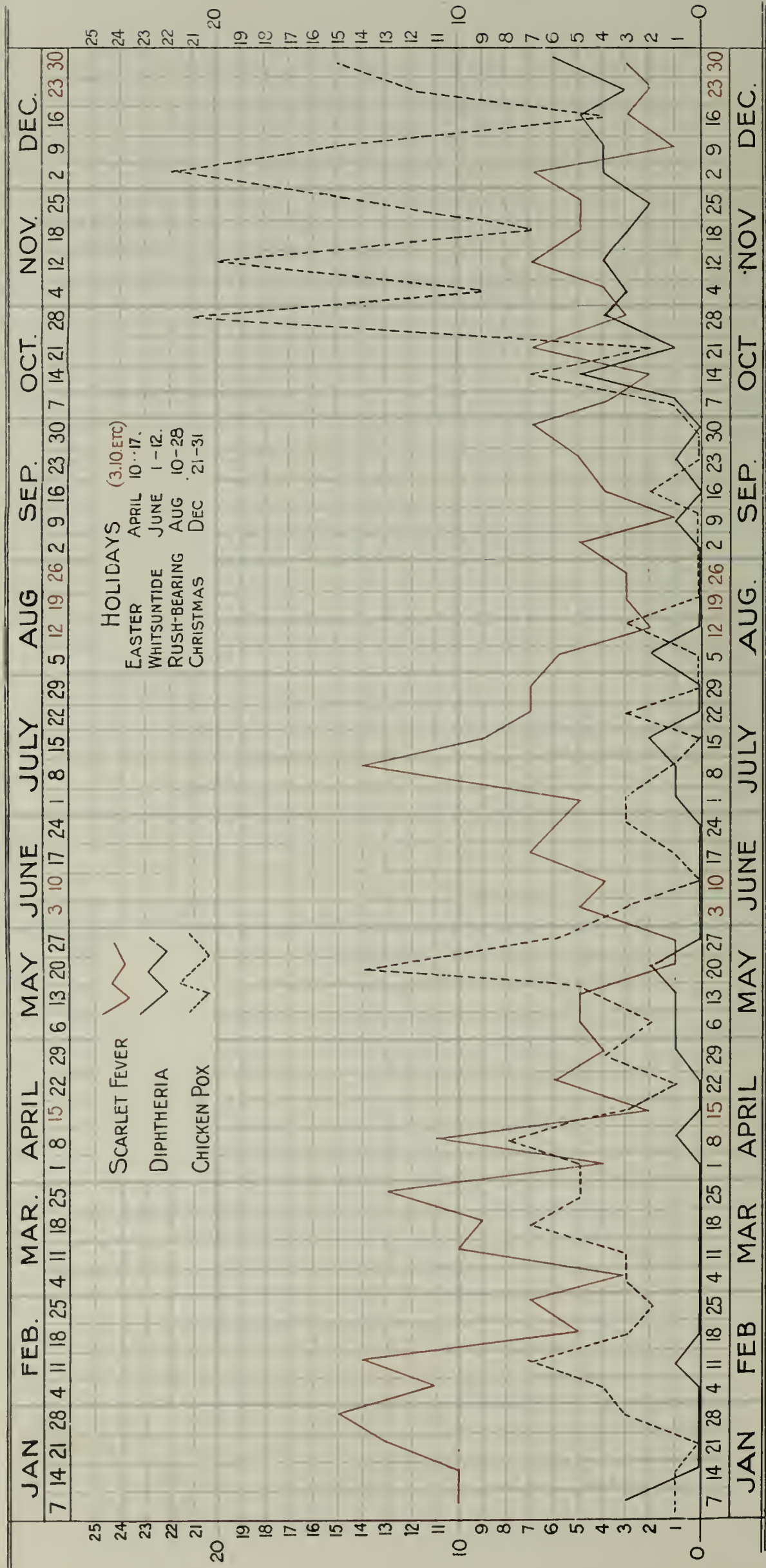
WEDNESDAY.—Soup—in which are vegetables and meats.

THURSDAY.—Peas and potatoes with meat.

FRIDAY.—Vegetable soup and suet pudding.

SATURDAY.—Mutton sandwiches and cocoa.

WEEKLY NOTIFICATION OF CERTAIN INFECTIOUS DISEASES DURING 1914.



In addition the supply of bread is unlimited and is of two kinds, brown and white. At one time currant bread was supplied but the children tired of it and so it was discontinued.

For breakfast the children were supplied with cocoa and bread with either jam, dripping, cheese or butter in turn and as much a variety maintained as possible.

Under the conditions, it is very necessary to state that the obvious improvement in one and all of the children fed has well repaid all the trouble and expense entailed. Not only are the children less pinched looking but they now have more colour and more energy. It is the constant remark of Principal Teachers that the children fed have been thereby given the start which they otherwise would never have got.

Not only was the supply of meals to children constantly under the supervision of teachers everywhere, but periodic visits were paid to the different centres and caterers, both during the preparation and the serving of the meals. In addition, the Committee decided that all such cases as were recommended by the Medical Inspector, whether in good circumstances or not, should receive meals.

(d) THE CONTROL OF THE SPREAD OF INFECTIOUS DISEASES IN ELEMENTARY SCHOOLS.

During 1914, the following were the number of the chief infectious diseases notified :—

Scarlatina	...	...	...	312 cases	Measles	...	...	1,025 cases
Diphtheria	...	...	...	63 „	Whooping Cough			400 „
Chicken Pox	...	...	...	254 „				

The figures for Diphtheria and Scarlatina are correct, as they are both compulsorily notifiable diseases, but the figures for the remainder are only approximate, being derived from the returns made by School Teachers.

The weekly figures for all the above have been charted out in the accompanying charts.

Scarlatina.

Following the epidemic of 1913, it was naturally to be expected that there would be some abatement in the cases of Scarlet Fever, but on comparison there is only a drop of 70 odd cases on the previous year's total. For the last quarter of 1913 there were, on the average, 9 cases weekly, and the hold the infection had obtained in the localities chiefly affected was not easily overcome. It is easy, therefore, to understand the continued prevalence of the disease in the early months of 1914.

On reference to the chart it will be seen that even in spite of the widespread epidemic, the seasonal prevalence of Scarlatina during June and July again made itself felt.

Diphtheria.

The incidence of Diphtheria during the year generally has been less than usual. During the last quarter, however, there was a definite increase in the number of cases to almost be an epidemic. This is due to several carrier cases who had had mild illnesses which were treated at home, and on returning to school too soon, caused the infection of other scholars.

Had the parents of these children availed themselves of the free advice of the Schools Medical Inspector there is probability that much fewer cases would have been nursed at home, or allowed back to school before they were free from infection. If only parents would voluntarily consult the Medical Officer more, there would be fewer sources of infection to other children.

Chicken-pox.

254 cases of Chicken-pox were notified by the School Teachers during 1914. Though not a fatal infection like Diphtheria or Measles, it is very hard to control ; for if a child so suffering be exposed for even so short a time to other children, the possibility of its spread is very much

greater than a very early case of Scarlatina similarly exposed. So great is the infective nature of Chicken-pox that it leads one to think that, like Measles, it is as infectious prior to the development of the rash as after its appearance.

Other factors which make its control difficult are the irregularity of its spread, the cases seemingly having no connection one with another, and also the long period of 17 to 22 days which must elapse before it is possible to say whether control has been established. This "incubation" period, as it is termed, is very strikingly demonstrated in the accompanying chart where the "temporary abatement" between the series of cases is well seen. School closure for Chicken-pox has little or no effect unless carried out for a period of say five days at or about the time a new series of cases is expected. If the school is closed prior to this time, there is usually a fortnight of freedom from cases, which would be totally lost so far as education was concerned. This method has been adopted in Rochdale, and disinfection of premises carried out at one and the same time.

Measles and Whooping Cough.

Parents still neglect to treat these infections with the same care as say Diphtheria. There is great need of education in this matter, and the only way they can be taught is to treat these diseases similarly to Scarlet Fever, &c., and not only cause all cases to be notified to the Health Authority by the medical men in attendance but also to cause proper isolation to be carried out, whether at home or in hospital, but preferably in an institution.

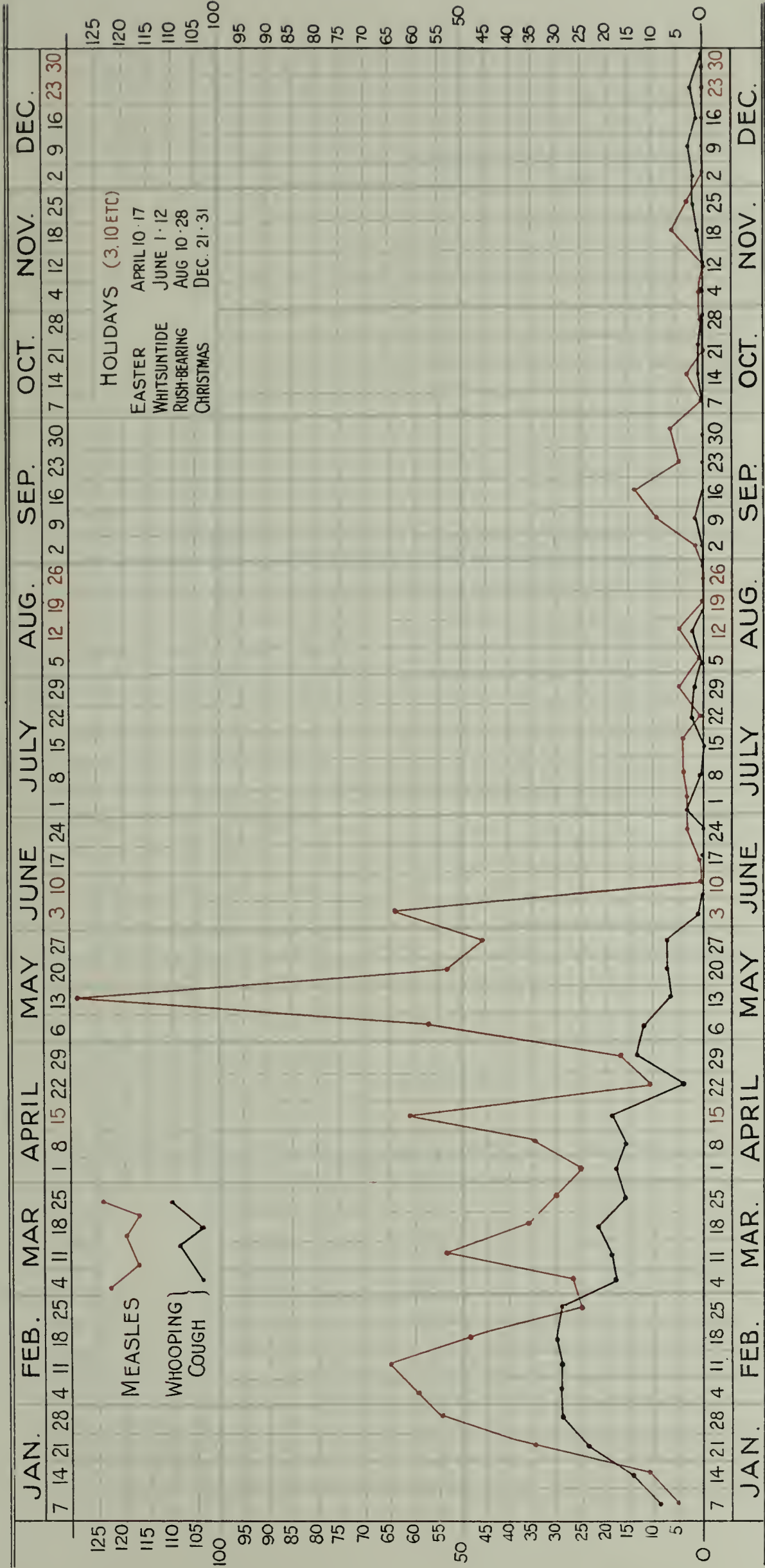
The toll these diseases take of infant life is very much greater than it need be, and not only is that to be considered but the after effects are so numerous, although so easily prevented, as to cause much unnecessary suffering to the delicate structures of the child. It is to be noted that whereas there was a greater incidence of Measles in May, the consequential rise in the number of cases of Whooping Cough is prevented by the warm weather experienced during the month. Its action is to cause a diminution in the complications of the lungs in Measles, namely Pneumonia and Bronchitis, and so bring about less suitable soil for the implantation of the microbe of Whooping Cough.

School Closure.

The following schools were closed for the diseases and periods stated :—

School	Period Closed	Adjacent Holidays	Disease	Remarks
Heybrook (Junior Dept.)	May 25—29	May 30—June 13	Measles	
Baillie-st. Council ...	June 15 & 16 ...	"	Small-pox	Period of isolation of contacts of Small-pox case which occurred in the district from which these children were drawn.
Penn-st. Council ...	"	"	"	
St. Patrick's R.C. ...	"	"	"	
Greenbank Council (Infant Dept.) ...	Nov. 11 & 12 ...	...	Chicken-pox	For disinfection.
St. Mary's C.E. (Balderstone) (Infant Dept.) ...	Dec. 11—21 ...	Dec. 21—31 ...	Mumps	

WEEKLY NOTIFICATION OF CERTAIN INFECTIOUS DISEASES DURING 1914.



SECTION V.**Teachers examined in 1914.****Uncertified Teachers.**

One lady candidate was examined during the year and she was accepted without reserve.

Pupil Teachers.

Eight candidates were examined with the results indicated in the subjoined table.

TABLE XVII.

AGE	Number examined		Accepted unreserv- edly		Accepted, subject to attention to :—								Total Number accepted	
					Teeth		Eyesight		Vaccination					
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls		
16	2	5	...	...	2	4	1	2	...	4	2	5
17	...	1	...	1	...	...	...	...	...	...	...	1
TOTAL ...	8		1		6		3		4		8			

In conclusion may we add that the School Nurses have once again shown their loyalty in the carrying out of the work of medical inspection and have rendered invaluable help in the preparation of the foregoing report.

Also we would compliment the Head Teachers upon the excellent manner in which they have carried out the various duties connected with their side of medical inspection.

We have to acknowledge the co-operation of the Dental Officer, Mr. MacGregor Whyte, in the organisation and inauguration of the Dental Clinic, and also for the preparation of the report on the work of the clinic.

To Mr. Holden, the Secretary of the Education Committee, and his various assistants for the various and valuable help so freely given to the carrying out of the work generally, we give our very best thanks.

With these remarks, I present my report for your consideration, and
have the honour to remain,

Ladies and Gentlemen,

Your obedient Servant,

T. F. S. FULTON, M.B., D.P.H.,

Assistant Medical Officer of Health, and
School Medical Officer.

TOWN HALL, ROCHDALE.

17th May, 1915.

APPENDIX (A).

Detailed Return showing the Age and Sex Distribution of the Physical Condition of Children Inspected.

Condition	Entrants			Leavers			Total			Specials		
	Boys	Girls	Total	Per cent.	Boys	Girls	Total	Per cent.	Boys	Girls	Total	Per cent.
Total Inspected	781	792	1573		743	753	1496		1524	1545	3069	
Clothing ...	756	784	1540	97.9	710	735	1445	96.5	1466	1519	2985	97.2
Footgear ...	25	8	33	2.09	33	18	51	3.3	58	26	84	2.7
Cleanliness of Head ...	765	786	1551	98.6	716	743	1459	97.5	1481	1529	3010	98.0
Satisfactory ...	16	6	22	1.3	27	10	37	2.4	43	16	59	1.9
Unsatisfactory ...	772	695	1467	93.2	739	628	1367	91.3	1511	1323	2834	92.3
Clean ...	8	92	100	6.3	4	118	122	8.1	12	210	222	7.2
Nits ...	1	5	6	0.37	...	7	7	0.4	1	12	13	0.4
Pediculi ...	771	783	1554	98.7	735	744	1479	98.8	1506	1527	3033	98.8
Cleanliness of Body ...	10	9	19	1.2	8	9	17	1.1	18	18	36	1.1
Clean ...	...	...	...	...	...	...	...	...	...	...	...	...
Dirty ...	18	12	30	1.9	38	38	76	5.0	56	50	106	3.4
Pediculi ...	757	777	1534	97.5	675	689	1364	91.1	1432	1466	2898	94.4
Nutrition ...	5	3	8	0.5	29	25	54	3.6	34	28	62	2.0
Excellent ...	1	...	1	0.06	2	1	3	0.2	3	1	4	0.1
Normal ...	455	491	946	60.1	474	476	950	63.5	929	967	1896	61.7
Below Normal ...	48	27	75	4.7	48	23	71	4.7	96	50	146	4.7
Bad ...	187	190	377	23.9	174	191	365	24.3	361	381	742	24.1
Nose and Throat ...	84	78	162	10.2	40	55	95	6.3	124	133	257	8.3
Tonsils slightly enlarged ...	6	5	11	0.6	7	8	15	1.0	13	13	26	0.8
Tonsils much enlarged ...	1	1	2	0.1	...	...	...	...	1	1	2	0.06
Adenoids, slight ...	...	...	...	...	...	...	...	...	...	...	...	...
Adenoids, marked ...	692	694	1386	88.1	663	681	1344	89.8	1355	1375	2730	88.9
External Eye Diseases ...	22	38	60	3.8	25	28	53	3.5	47	66	113	3.7
No disease ...	63	54	117	7.4	48	42	90	6.0	111	96	207	6.7
Blepharitis ...	...	4	4	0.2	6	2	8	0.5	6	6	12	0.3
Conjunctivitis ...	4	2	6	0.3	1	...	1	0.06	5	2	7	0.2
Corneal Opacities ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	689	661	1350	85.7	625	653	1278	85.4	1314	1314	2628	85.6
Ear Diseases ...	56	78	134	8.5	56	49	105	7.0	112	127	239	6.1
No disease ...	35	50	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
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Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
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Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
Otorrhœa, Left
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
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Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
Otorrhœa, Left
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
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Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
Otorrhœa, Left
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right ...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
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Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
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Obstruction, Right	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1	2	0.1	5	1	6	0.4	6	2	8	0.2
Otorrhœa, Right
Otorrhœa, Left ...	...	...	...	...	...	...	...	...	...	...	...	...
Other disease ...	662	661	1323	85.7	625	653	1278	85.4	1314	1314	2628	85.6
No disease ...	36	49	85	5.4	54	49	103	6.8	89	99	188	7.7
Obstruction, Right ...	...	2	2	0.1	3	1	4	0.2	3	3	6	0.1
Obstruction, Left ...	1	1										

[illegible]

APPENDIX (B).

Condition	No. of Defects found for which treatment was considered necessary			No. of Defects treated	Results of Treatment			No. of Defects not treated	Percentage of Defects treated
	From previous year	New	Total		Remedied	Improved	Unchanged		
Clothing	*	*	*
Footgear
Cleanliness of Head
Cleanliness of Body
Nutrition
Nose and Throat	62	45	17	70	75	46.9
External Eye Disease	23	19	4	12	12	65.7
Ear Disease	54	33	21	4	11	93.1
Teeth	38	28	10	50	53	43.1
Heart and Circulation	8	...	8	...	...	100.
Lungs
Nervous System
Skin	15	10	5	...	...	100.
Rickets	5	3	2	4	6	55.5
Deformities
Tuberculosis-Men.
Pulmonary
Speech
Mental Condition
Vision and Squint	1	1	...	1	1	50.
Hearing
Miscellaneous	16	9	7	1	2	94.1
'TOTAL '	222	148	74	142	160	...

* No Figures available.

